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Water Resources Survey



Part I:

HISTORY OF LAND AND WATER
USE ON IRRIGATED AREAS

Sweet Grass County

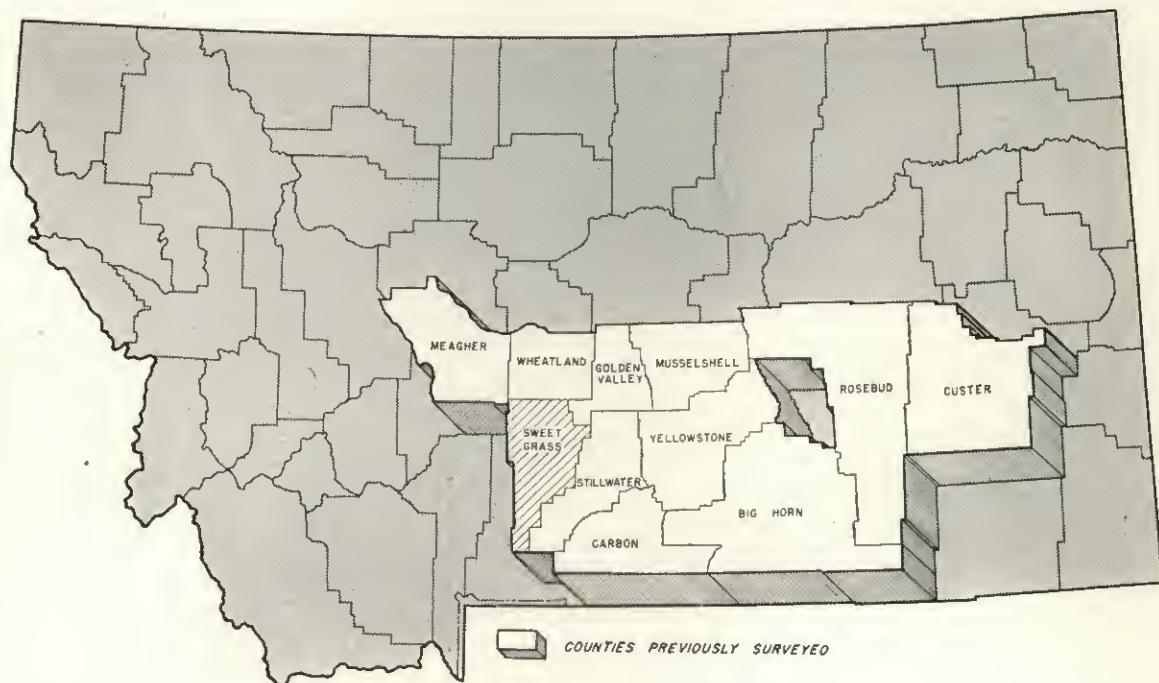
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Published by
STATE ENGINEER'S OFFICE
Helena, Montana, July, 1950

WATER RESOURCES SURVEY

SWEET GRASS, COUNTY MONTANA

Part 1
History of Land and Water Use
on Irrigated Areas



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Helena, Montana
July, 1950

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July, 1950

Hon. John W. Bonner
Capitol Building
Helena, Montana

Dear Governor Bonner:

Submitted herewith is a consolidated report on the Water Resources Survey of Sweet Grass County, Montana. This work is being carried on by funds made available to the State Engineer by the Thirty-first Legislative Session, 1949, and in cooperation with the State Water Conservation Board.

The report is divided into two booklets—part one consisting of history of land and water use, irrigated lands, water rights, etc., while part two contains all of the township maps showing in color the lands irrigated from each canal.

The office files contain minute descriptions and details of each individual water right, water and land use, etc., which are too voluminous to be included herein. These office files are available for inspection to those who are interested.

Respectfully submitted,

FRED E. BUCK, State Engineer

TABLE OF CONTENTS

	Page
Foreword	1
Method of Survey	4
Sweet Grass County	
History	5
Organization	5
Transportation	6
Climate	6
Soils	7
Crops	8
Livestock	9
Water Supply	9
Big Timber State Fish Hatchery Unit	10
Gallatin National Forest—Big Timber District	12
Summary of Irrigated Land	
Counties Completed to Date	14
Sweet Grass County	15
Irrigation Systems and Ditch Companies	
Auwater Ditch Company	20
Big Timber Creek Canal Company	20
Company (Boggs) Mutual Ditch	21
Conwell Mutual Ditch	22
Dry Creek Canal Company	22
Ellison Mutual Ditch	23
Harrison Mutual Ditch	24
Hogan Ditch Company	24
Hunters Hot Springs Canal Company	25
Kent Mutual Ditch	26
McLeod Mutual Ditch	27
Pioneer Ditch Company	28
Post-Kellogg Mutual Ditch	29
Prather-Mayborn-Westfall Mutual Ditch	30
Sweet Grass Canal and Reservoir Company	31
Ten Mile Ditch Company	32
Decrees	
American Fork Creek and Tributaries	33
Big Coulee Creek	35
Big Timber Creek and Tributaries	38
Bridger Creek	46
(Lower or East) Deer Creek and Tributaries	46
Devil Creek	48
Duck Creek and Tributaries	48
Elk Creek	55
Fish Creek and Tributaries	56
Jarrett, or Wright, Creek and Tributaries	58
Little Big Timber Creek and Tributaries	59
(North Fork) Otter Creek and Tributaries	60
Sheep, or Mendenhall, Creek and Tributaries	60
Spring Creek	61
Sweet Grass Creek and Tributaries	62
Warm Springs, or Fistecator Creek	71

ACKNOWLEDGMENTS

A survey and study of water resources involves many phases of work in order to gather the necessary data to make the information both complete and comprehensive. Appreciation of the splendid cooperation of various agencies and individuals who gave their time and assistance in aiding the gathering of data for the preparation of this report is hereby acknowledged.

Sweet Grass County Officials

Thos. Anderson, Chairman	J. T. Clark, Commissioner
	Fred B. Smith, Commissioner
Dick Armstrong, Clerk & Recorder	Beulah Patterson, Clerk of Court
	Roy S. Webber, Assessor
F. B. Peterson	County Extension Agent
L. F. Gieseke	
	Associate Agronomist, Montana Agricultural Experiment Station
Dorothy Traver	Sweet Grass Abstract and Audit Co.
R. A. Dightman	Section Director, U .S. Weather Bureau, Helena
Alban Roemer	District Ranger, Big Timber District
Forest Keller	Foreman, Big Timber State Fish Hatchery Unit

Irrigation systems with names of those users from whom much of the information was received:

Auwater Ditch Company	Berent M. Berg
Big Timber Creek Canal Company	Harry Plaggemeyer
Company (Boggs) Mutual Ditch	R. Home
Conwell Mutual Ditch	Joe Mathis
Dry Creek Canal Company	E. J. Roberts
Ellison Mutual Ditch	Claude Gray
Harrison Mutual Ditch	H. P. Forsythe
Hogan Ditch Company	Fred Tucker
Hunters Hot Springs Canal Company	Mrs. Donald McKenzie
Kent Mutual Ditch	Mrs. Adolf Myrstol
McLeod Mutual Ditch	J. F. Clark
Pioneer Ditch Company	John Boe
Post-Kellogg Mutual Ditch	Jess Duncan
Prather-Mayborn-Westfall Mutual Ditch	John Carney
Sweet Grass Canal and Reservoir Company	Harold Faw
Ten Mile Ditch Company	Lavold Brothers

The State Engineer's Office, Water Resources Survey, hereby expresses sincere appreciation to the many ranchers and farmers who have given their helpful cooperation in this survey.

FOREWORD

In nearly all of the 17 Western Reclamation States a water right is obtained by first making a filing with some legally designated central state agency—usually the State Engineer's office—setting forth the amount of water desired and the area proposed to be irrigated. A study is then made of the sufficiency of the water supply and, if found adequate, a permit for use of the water is issued and recorded. If studies show that the stream is depleted, the application is denied. The procedure in Montana, however, is vastly different.

In Montana a right to the use of water from a stream not adjudicated by the courts is acquired by posting a notice on the stream and filing a copy of same in the office of the county clerk of the county wherein the appropriation is located, and by proceeding to divert and use the water. Where a person diverts and uses water from a stream without posting or filing a notice, a water right based thereon has been recognized as valid by the courts. Whenever it becomes necessary to adjudicate the stream, both methods of acquiring rights have been recognized by the courts, and the amount of water finally decreed and dates of priority in either case are determined by the evidences and proofs.

Under Montana law there is no restriction as to the amount of water one may designate in his notice of appropriation. As a consequence, the amount set forth in the filing in no way indicates the amount being diverted and used, nor does it show whether or not the water was ever used at all to perfect the right. Nor is there any relation whatsoever between the amount filed on and the normal flow of the stream. To further complicate this matter, our courts have made it almost impossible to prove the abandonment of a water right.

There is no central office in the State where recordings are filed, or any supervision over the distribution of water from unadjudicated streams. One wishing to study the validity of a water right must make a search of the county records wherein the stream is located and perhaps two, three, or more counties if the stream courses through them. About the only result one will accomplish by such a research will be a tabulation of the dates of filing. The amounts of water filed on will be of no consequence; there is no conclusive evidence that the recorded appropriations have been perfected, and there is no record of the rights which are being used but never recorded. Therefore, a purchaser of ranch property, where he has to depend upon irrigation from a stream that is not adjudicated, has no way of determining the validity or priority of his water right. He has no assurance of the value of the right until the stream is adjudicated by the court, when each claimant must prove his claim by material witnesses.

The pioneers who are able to offer direct testimony in adjudication suits are rapidly passing on. One phase of this Water Resources Survey is to obtain all of the first-hand information possible on water and land use from the "old timers" who are left, before it is too late. These data will include every known water right up to the time of completing the work in the respective counties, and the information will be on file for inspection in the State Engineer's Office. At the time of this publication, Yellowstone, Carbon, Stillwater, Big Horn, Custer, Rosebud, Musselshell, Golden Valley, Wheatland, Meagher and Sweet Grass counties are completed, with work progressing on Park and Treasure counties. A prospective land purchaser, after studying the record in any of the above named counties, may have a good idea of the sufficiency and priority of the water right appurtenant to the land in question.

In this and succeeding volumes of the data compiled by this Water Resources Survey, it is the intention to provide as much information as is possible relative to the water right records of the various counties, as well as to assemble such other information as may be available from all

sources having knowledge of these various water rights. Every precaution is being taken to avoid errors in the compilation of these data.

The results of this work were used in negotiating the Yellowstone River Compact between the States of Wyoming, North Dakota and Montana. In arriving at an equitable division of the waters between the states, it was necessary for Montana to have a catalog of its irrigated land and water use. This same question will undoubtedly arise in other river basins. It is highly important that Montana gather such data, and thereby be able to defend its water rights in the development of the great river basins of the Missouri and Columbia rivers and the international streams between Canada and Montana.

The subject of water rights is coming more and more into prominence as the rapid expansion of our irrigated area proceeds under the impetus of both State and Federal development programs. As new canals are dug and old canals and ditches are enlarged and extended, the relative area of land to be irrigated, compared to the water supply available for irrigation, becomes greater, and a competition for the limited water supply results, which often develops into controversy over the right of use of the water.

In a strict sense a "water right" on a live stream does not imply ownership in the same way as does a deed to a tract of land or a certificate of title to an automobile. A water right implies only the right to divert and use the water. Water when stored in a reservoir, however, is recognized as real property which may be sold or disposed of as desired by the owner. The ownership of the water of our rivers and streams rests in the State and the rules under which the State grants to the individual the right to use these waters are known as Water Right Laws.

The early settlers in Montana took up land under the provisions of the Homestead Law of 1862 and the Desert Land Act of 1877. The former Act gave 160 acres of land to anyone who settled on it and put it into cultivation. The latter deeded 640 acres of land to anyone who would irrigate it and pay the government \$1.25 per acre. In 1890, filings under the Desert Land Act were reduced to 320 acres. The construction of ditches on desert claims was in compliance for title to land rather than for irrigation, and little attention was paid to the water supply available. Consequently miles of ditches were dug in Montana through which no water ever flowed. This is especially true in the drier parts of the state, where the diversions were made from intermittent streams.

In the more fertile mountain valleys irrigation was given more importance than in the plains country. Live streams provided a dependable source of water supply and the ditches which tapped them were designed to actually carry water, not merely to comply with a legal requirement to obtain title to a piece of land. Thus, the right to diversion and use of water for irrigation became as important as the acquisition of title to the land.

But, while the government granted a patent deed as evidence of title to the land upon proof of compliance with the Homestead Laws, there was no deed, certificate of title or other legal instrument offered as evidence of title to a water right.

Water rights refer also to other uses than irrigation. Thus, the authorized use of water for mining, power, fish hatcheries, bird refuges, recreational purposes, municipal needs for culinary supply and sewage disposal, manufacturing, or navigation, all may become valid water rights.

The first irrigators took for granted their right to use water from creeks or rivers for irrigation. They saw water going to waste and appropriated it to their needs. It was as free to them as the air they breathed. They made no official record of the game they shot for food or the

fish they caught in the streams and likewise considered it unnecessary to make official record of the time, place, or the amount of water diverted for irrigation. However, time has changed these conditions and it is now necessary to record the game killed and limit the fish catch, and also file a claim for the water appropriated from the streams and rivers for irrigation or other use.

When game was plentiful, no one concerned himself with the number of deer a person killed, but when game became scarce, steps were taken to prevent a few persons from taking more than their share while others had to go without. To do this it became necessary to issue licenses or permits to kill game and also a keep a record of game killed, a practice which is still followed.

Likewise, when only a few settlers diverted water for irrigation and the supply was more than enough for all, no one was concerned about the exact amount used by any one person. But as more and more settlers constructed diversion dams and ditches and tapped the rivers and streams for irrigation water, it soon became evident that there would not be enough water for all. Thus, a year with low water brought about disputes over the division of the supply. The older settlers, in such cases, demanded that the later comers close down their headgates and refrain from taking water, in order that the prior appropriations might have a full supply. The later users, on the other hand insisted that the available supply be divided among all users so that all might share alike.

Thus, progressive over-development of irrigation, together with the occurrence of seasons of water shortage, combined to bring about the enactment of Water Right Laws in the Western States where irrigation is practiced.

METHOD OF SURVEY

Data incorporated in this report were obtained by the field survey method in cooperation with the irrigators on the land.

For irrigation systems under private ownership, water users were asked for specific information as to the source of water, present acreage irrigated, potential irrigable acreage under existing works, seeped acreage, condition of irrigation system, type of system, water supply, dates of priority, and the amount of water appropriated or decreed. This information was then recorded on a field form and later checked as to its authenticity.

The information in regard to the location of the irrigation system, present irrigated and potential irrigable lands under existing works, was indicated on aerial photographs with the exact location of each shown, and the various systems distinguished by color.

After the field survey was completed, the information was mapped on township maps from the aerial photographs, by means of projection, to insure the utmost in accuracy. In addition to the information pertaining to irrigation, all culture, drainage, section lines, etc., were mapped in order to make complete and authentic township plats for the area concerned. This information was then mapped by farm units on individual farm forms that show the farm boundary, the location and type of irrigation system, location of irrigated and potential irrigable lands, present irrigated acres, potential irrigable acres under existing works, types of system, source of water, etc., with water filings attached. If the field survey information was complete, these individual farm forms were completed in the office. If not, the water user was again contacted in an attempt to complete the form. After these farm unit forms were completed, a summary was made of each township, which shows the name of the water user, section, township and range, source of water, whether a user has a private irrigation system or is under a ditch company or irrigation district, acres irrigated from each source, present irrigated acres, potential irrigable acres under existing facilities and maximum irrigable acres. The summary given in this report was tabulated from these township summaries to show the totals for the county. After this was accomplished and a final check made, color separation maps were drawn which included from three to ten separation plates, depending on the number of colors that appear on the final township map in Part 2 of this report. Section and township corner locations were obtained by the photogrammetric system, based on Government land classification maps, county maps, plane table sheets and other sources.

This is the first survey of its kind ever to be consummated in the United States. The value of this work has been well substantiated by giving Montana its first accurate and verified information concerning its water resources under existing irrigation facilities. New lands to be developed by State and Federal construction agencies are not within the scope of this report. No effort has been made to analyze economic possibilities, or the problems of the irrigated projects, or to make recommendations as to their future development. The facts presented are as found and provide the items and figures from which a detailed analysis can be made.

GENERAL INFORMATION ABOUT SWEET GRASS COUNTY

HISTORY

The first white men to enter the lands now embraced in Sweet Grass County were William Clark and his party when they passed down the Yellowstone River in 1806 on the return of the Lewis and Clark Expedition from the Northwest. Transitory hunters, trappers and traders were the only other white men to venture into this area, the hunting grounds of the Crow Indians, until 1864 when John Bozeman blazed an east and west trail through the district. A few years later, in 1871, with the aid of a military escort, a Northern Pacific survey crew ran lines along the future route of the railroad.

The first permanent settler arrived in 1873 and farmed near the mouth of Duck Creek. Shortly afterward, stockmen drove herds of cattle and horses into the Sweet Grass and Big Timber valleys. The first great influx of settlers arrived with the construction of the Northern Pacific Railroad through the Yellowstone River valley in 1882.

The first stage road traversed the benches of the Yellowstone on the north bank. A stage stop situated at the mouth of Big Timber Creek was called Big Timber, after the creek. With the construction of the railroad on the south bank of the Yellowstone, and thus mail delivery by train, the town of Dornix, meaning cross rivers, was established on the west bank of the Boulder River opposite the mouth of Big Timber Creek. Because of steep grades west of Dornix the train was forced to pass on its westward trip and stop on the benches above to discharge passengers, mail and freight. The Railroad Company erected a depot on this spot in 1883 and the business of Dornix gradually moved to the newly founded town which acquired the name of Big Timber, after the abandoned stage stop on the north bank of the Yellowstone River.

During the '80's the western part of the Crow Indian Reservation transferred to federal ownership and in turn was acquired by private individuals. Along with the transfer, stockmen moved their herds onto grazing lands south of the Yellowstone River and established home ranches in the stream valleys.

Sweet Grass County was created on March 5, 1895, having its name derived from Sweet Grass Creek. Big Timber was designated as county seat in the creative act and confirmed by election in 1896.

Land was acquired by ranchers and farmers by purchase of railway land, and granted land under the Homestead Act and Desert Land Act. Dry land cropped acreage increased until 1918 when the severe drought caused marginal farm lands to be abandoned and the land reverted to range. Stock raising, however, has always been Sweet Grass County's greatest industry. Farming has increased since 1937 when climatic conditions became more favorable, but continues to remain considerably less than prior to 1930, the start of the most protracted ten-year drought in the history of the Northern Great Plains.

SWEET GRASS COUNTY ORGANIZATION

The area now embraced in Sweet Grass County was included in Gallatin County by an Act of the first Territorial Assembly of Montana, approved February 2, 1865, creating the nine original counties. Sweet Grass County was originally formed March 5, 1895, from Park County which was formed February 23, 1887, from a part of the original Gallatin County. Stillwater County

was created March 5, 1915, from a portion of Sweet Grass, Yellowstone and Carbon counties. Some of the lands embraced by the proposed Stillwater County were at that time transferred to Sweet Grass County and some of the lands in Sweet Grass County were transferred to Stillwater County in an effort to even the county lines. On October 4, 1920, Golden Valley County was created from a portion of Sweet Grass, Stillwater and Wheatland counties, this being the most recent boundary change of Sweet Grass County.

Sweet Grass County is an irregularly shaped area located in the south-central portion of Montana and bounded on the east and south by Stillwater County, on the north and east by Golden Valley County, on the north by Wheatland County, on the west by Meagher County, and on the west and south by Park County. It comprises an area extending approximately 45 miles east and west and 70 miles north and south; however, it embraces only approximately 1,845 square miles due to its extremely irregular boundary. In the northwest it embraces a portion of the Gallatin National Forest in the Crazy Mountains; in the south it embraces portions of the Gallatin and Custer National Forests in the Beartooth Mountain Range. Big Timber, the principal town and county seat of Sweet Grass County, is centrally located in the county and serves as the trading center for the area.

TRANSPORTATION

The main line of the Northern Pacific Railway passes through Sweet Grass County east and west closely following the Yellowstone River, and is paralleled by U. S. Highway 10. State Highway 19, running north and south, connects Big Timber with Harlowton. Both highways, Nos. 10 and 19, are oiled. Big Timber, the county seat and principal supply and shipping point for the county, is also served by the Greyhound Bus Line and several auto freight lines. The nearest commercial air fields are located at Bozeman and Billings.

Aside from these transportation facilities the area is well supplied with graded county roads which make the main highways and railroad shipping points accessible the year round.

CLIMATE

Due to the topographical features of Sweet Grass County, there are extreme climatic contrasts between valley bottoms, plateau areas and mountainous uplands, with the Beartooth Range on the south and the Crazy Mountains on the west strongly influencing climatic conditions. In general it might be said that Sweet Grass County is characterized by moderate to strong westerly winds, low relative humidity, comparatively little rainfall, wide diurnal and seasonal variation of temperature, and plentiful sunshine. Although the summer season is short, crop growth is stimulated by the long hours of daylight and greater intensity of sunshine incident to high altitudes.

Climatic data for Big Timber, compiled by the United States Weather Bureau at Helena, show that the annual precipitation varies considerably from year to year; the greatest annual precipitation being 20.90 inches, the least annual precipitation being 9.38 inches, and the average annual precipitation being 14.76 inches. The average monthly precipitation reaches maximum values in May and June. The average date of the last killing frost is May 20 and of the first killing frost is September 20, giving an average frost-free period of 123 days; however, frost as late as June 13 and as early as August 25 have been recorded. The mean annual temperature is 46.9 degrees F. with the January average of 26.2 degrees F. and the July average of 70.4 degrees F. Extreme temperatures recorded, which are seldom reached and of short duration, are 110 degrees F. and -47 degrees F. The Big Timber weather recording station, the only station in the county, has an elevation of 4,100 feet.

SOILS

The soils in Sweet Grass County are, in general, lacking in organic material but tend to retain a large proportion of soluble mineral salts because of their development under semi-arid climatic conditions. Successful irrigation of such soils require adequate drainage, natural or artificial, to assure removal of excess water that might otherwise be evaporated from the soil surface and leave a concentration of salts. The soils of the western part of the area are darker than those of the eastern part, a result of the general rise in elevation from east to west and the heavier precipitation and more luxuriant growth of grasses near the mountains.

Due to the extreme variations of parent material, including igneous, metamorphic and sedimentary rocks, and the topographical features within the county, the soil types do not cover extensive areas.

Undifferentiated alluvial soils occur chiefly on flood plains and high bottomlands of the stream valleys. These soils are developed from alluvium washed from the uplands and river-wash and, because of the varying parent material, vary considerably in texture, structure and consistency from one locality to another. In the lower rainfall areas the soils are light colored except where they have become darkened by the accumulation of organic matter in poorly drained areas. These soils are adaptable to irrigation and, where they are well drained and free from harmful alkaline accumulations, produce good yields. Due to numerous cobbles and stones which hamper cultivation in some areas the land is utilized as irrigated pasture. Other low alluvial benches are subirrigated.

Immediately above the alluvial soils, occupying low benches below the stream breaks and high tablelands principally along the Yellowstone and Boulder valleys, lie loams and cobbly loams. Loose gravel and cobbles washed from the adjacent tablelands cover much of this productive dark brown silt loam and clay loam. The soil is not under cultivation above the ditch because of its low water-holding capacity; however, below the ditch good crops of alfalfa and small grains are produced on the better drained land.

Near and below the mouth of West Boulder River in the Boulder River Valley lies a considerable area of stony glacial outwash. This stony area has a high livestock carrying capacity due to the dense cover of grass and shrubs that it supports. Some of this outwash has been covered with detritus from the surrounding tablelands and is now under cultivation and irrigation.

On the undulating and rolling uplands, tablelands and stream breaks south of the Yellowstone River Valley, the soils vary from rough soil material to clay loam and occasionally a claypan. The parent materials are shales and sandstones with occasional igneous material. Fragments and slabs of sandstone and siltstone occur on the surface and in soil sections. The soil is generally thin and ranges in color from pale brown at lower elevations to dark brown on the higher divides. Subsurface and surface drainage is good; however, the water-holding capacity varies from low to high according to the structure and texture. The smoother slopes are devoted to the production of winter wheat, summer fallowing being practiced in order to accumulate moisture in the subsoil. The remainder is devoted to the grazing of livestock. Occasional open stands of yellow pine are found along the stream breaks and on steeply sloping areas.

North of the Yellowstone River, immediately above the alluvial soils and making up low benches, lies a clay loam which, because of its location and susceptibility to irrigation, produces good yields of irrigated feed crops, mainly alfalfa. On the uplands north of the Yellowstone River the soils vary from cobbly loams and stony loams to clay loams, depending upon the parent material. Most of the soils have developed from siltstone and sandstone; however, volcanic material

and mud flows underlie sizable areas and appear as occasional outcrops. The soils are generally shallow, range in color from light grayish brown to dark brown, and have cobbles, stones or slabs and fragments appearing on the surface. This land is utilized almost entirely for grazing.

In the northwest and west-central portion of Sweet Grass County, in the foothills east of the Crazy Mountains, numerous areas are covered with colluvial-alluvial material brought down from the surrounding mountains. Other areas are underlain by consolidated volcanic material, sandstone and siltstone. The topography ranges from smooth, steeply sloping fans to sloping tablelands cut by stream action, with occasional stony ridges. The soils consist predominately of clay loams, stony loams and cobbly loams which are generally granular and contain abundant stones and gravel on or near the surface. The soil color ranges from black to dark brown. Practically all of the land is utilized for grazing. At lower elevations and on less stony areas some small grains are grown for hay. Some irrigation skirts the steeper slopes.

The northcentral area includes lands under the Big Timber Carey Land Act Project which consists of land under the Big Timber Creek Canal and Sweet Grass Canal and Reservoir companies' irrigation systems. A considerable acreage under these systems is irrigated; however, much of the land is seeped and saline due partially to the good water-holding capacity and only poor to fair surface and subsurface drainage of the soil. The soils are shallow with fragments and slabs of fine-grained sandstone on the surface. The soil is predominantly silt loam with smaller outcrops of cobbly clay loam, sandy loam, silty loam and clay loam. Cobbly clay loam makes up the low bench upon which Melville is situated. The soil color ranges from pale grayish brown to dark brown. The area is characterized by undulating to sharply rolling uplands with localized low benches in the vicinity of Melville. Most of the area not suited for irrigation is used for grazing of livestock. Some small grains are grown on the less stony areas, summer fallowing being practiced to conserve moisture in the subsoil.

Soils in the eastcentral and northeastern portion of the county have developed principally on sandstone, siltstone and silty shale. The resultant soils are brown to dark brown loams, silt loams and stony loams with slabs and flaggy sandstone on the surface. The area is characterized by dissected sloping to rolling tablelands. On the more gentle slopes small grains are grown on summer fallowed dry lands. Little irrigation is practiced due to the scarcity of water except during spring runoff. Most of the land is utilized for the grazing of livestock.

At the present time no detailed soil survey has been made in Sweet Grass County. A reconnaissance survey, however, has been conducted in a manner so as to cover a large area in a comparatively short time and field work was necessarily general. For the soil reconnaissance of Sweet Grass County see "Soils of Sweet Grass County," preliminary report by L. F. Gieseke, in charge of soil survey, cooperating with the Division of Soil Survey, Bureau of Plant Industry, United States Department of Agriculture, published by Montana State College, Agricultural Experiment Station, Bozeman, Montana.

CROPS

Of the approximate 1,181,400 acres in Sweet Grass County, 1,102,650 have been classified as grazing land, according to the 1940 census, and 78,750 as cropland. From these figures one can readily see why such an area has become dependent upon livestock raising and realize the importance of native grasses in a livestock area. Practically all of the types of native grasses growing in Montana are found on the grazing lands. Second of importance on dry land is wheat, which, in 1949, 14,204 acres were seeded according to P.M.A. records. Following wheat are oats and barley.

On irrigated lands, alfalfa hay ranks as the principal crop. Following alfalfa are brome, crested

wheat, Huntley pasture mixtures, timothy, alsac, orchard grass, red top, and red clover. All of these are produced as a hay crop, principally on the ranches where they are used as feed. The excess, which usually amounts to 1,000 to 2,000 tons per year, is marketed in adjoining counties. Grain commands an extremely small portion of irrigated lands, and is generally used as a supplement to hay land.

LIVESTOCK

The prosperity of Sweet Grass County is largely dependent upon the livestock industry. According to figures obtained from the County Agent, sheep greatly outnumber all other livestock; and, as a matter of fact, are almost twice as populous as all cattle combined. In Sweet Grass County in 1949 there were 50,669 sheep, 1,155 milk cows, 27,352 other cattle, 2,188 horses and mules, 987 swine, and 13,502 poultry.

Over the past ten years the sheep population has been reduced by more than one-half due to the inadequate supply of labor; the number of dairy cows has remained relatively constant due to the location of two creameries in Big Timber; the number of cattle has increased in order to meet the market demand; horses and mules are on a constant decline due to modern mechanization; swine have remained relatively constant; poultry had risen during crucial war years, but at the present time are on the decline because of lowered market demand and prices.

Sheep and cattle comprise the major income for the inhabitants of the county; horses and mules are retained for draft purposes by most farmers and ranchers; swine and poultry are raised for private consumption, with the meager surpluses being placed upon local markets. A few ranches have colonies of bees for honey production.

WATER SUPPLY

Most of Sweet Grass County lies within the drainage basin of the Yellowstone River. The principal streams from which water for irrigation is derived are the Yellowstone River and its principal tributaries—Boulder River, Big Timber Creek, Otter Creek and Sweet Grass Creek.

The Yellowstone River rises in northwestern Wyoming flowing north to Yellowstone Lake which has an area of 142 square miles and provides a considerable amount of natural flow regulation. From Yellowstone Lake the river flows generally northerly to Livingston where it turns sharply eastward and flows thence across Park County, across Sweet Grass County and thence easterly and northeasterly to its confluence with the Missouri River in North Dakota. Near Big Timber it is joined by the Boulder River on the south and Big Timber and Otter creeks on the north. Sweet Grass Creek joins the Yellowstone River from the north near Greycliff.

Sweet Grass Creek, the largest perennial tributary of the Yellowstone River, Otter Creek and Big Timber Creek rise in the rugged Crazy Mountains, being fed year round by melting snows. They flow in an easterly direction from the Crazy Mountains and then gradually veer southward to their confluence with the Yellowstone River.

Boulder River, one of the largest streams uniting with the Yellowstone in Montana, rises in the Absaroka Range near Haystack Butte in the extreme southern part of the county. It flows thence in a northerly and northeasterly direction to join the Yellowstone River south of Big Timber.

Because of the abundance of winter snows in both the Crazy Mountains and the Absaroka Range, the water supply is generally considered adequate for present use, although some shortages occur in extremely dry years.

BIG TIMBER STATE FISH HATCHERY UNIT

In February of 1919, Mr. Noles and Mr. Frang, President and Secretary respectively of the Big Timber Rod and Gun Club, arrived in Billings to meet with members of the State Fish and Game Commission to bid for a rearing pond in Big Timber. Considerable work had been done by both men in selecting a suitable site, surveying streams which could be profitably stocked, preparing complete maps and computing fishing miles within the area. This material was laid before the Commission and it aroused the interest of the members to such an extent that within the next few days they were in Big Timber to look over the pre-chosen pond location. They were so satisfied with the location and conditions that they offered to initiate a small hatchery if a title could be acquired for the land. The Big Timber Rod and Gun Club raised the necessary money for the purchase, acquired a clear title from Mr. Harold Hawks, the owner of the proposed hatchery site, and donated the land to the State of Montana to be used for the Big Timber Fish Hatchery.

Sixteen troughs measuring 16 feet by 14 inches by 10 inches were originally constructed in 1919. With the aid of these troughs, approximately 1½ million 1½-inch fish could be produced annually. In 1921, 20 more troughs were added, bringing the total yearly capacity to 2 million 2-inch fish. In 1930, 36 additional troughs were installed bringing the total number of troughs to 72 and capacity of the hatchery unit to approximately 3 million 2- to 2½-inch fish.

In 1933, in an effort to produce larger fish for stocking, four indoor tanks were installed in place of 16 troughs, and four dirt ponds—two measuring 75 feet by 150 feet and two measuring 30 feet by 100 feet, were constructed. In 1949, five additional indoor tanks were constructed to replace 20 troughs; thus, today the Big Timber Fish Hatchery unit is equipped with 36 troughs, nine indoor tanks, four outdoor cement ponds, and four large dirt ponds. These facilities enable the hatchery to stock approximately 200,000 5-inch and 1,300,000 2-inch fish annually, the smaller fish being planted in virgin lakes or in headwaters where predators are at a minimum.

In August of 1949 the Bluewater Springs State Rearing Station, located ten miles south of Fromberg, was completed. The station is centrally located in the 12th area of responsibility in fish planting set up by State and Federal hatcheries and has an excellent supply of clear, fresh water; however, at the present time it is equipped with only ten rearing tanks and must be supplied with fry from the Big Timber hatchery.

The Big Timber hatchery is responsible for that area, including the drainage into the Yellowstone River from the mouth of the Shields River east to the mouth of the Big Horn River, or, the 12th district of responsibility in fish planting. Included in this area are major fishing streams such as the Yellowstone River, Big Timber Creek, Sweet Grass Creek, Boulder River, Stillwater River, Rosebud Creek, Clarks Fork, Rock Creek, Big Horn River, and the Little Big Horn River, as well as numerous tributaries, smaller streams and lakes.

In 1941, Raymond M. West, Jr. Biologist, U. S. Department of Agriculture, Forest Service, in cooperation with Elmer G. Phillips, Montana State Superintendent of Hatcheries, hatchery foremen, forest rangers, sportsmen's clubs of drainage areas and others interested in fish management, drew up a five-year fish distribution and management plan wherein the hatchery output was proportioned among the watersheds and points of stocking and species were set. Each hatchery adhered to this plan as closely as possible and facts, such as the adaptability of a certain species, were learned. Where a species did not survive in a certain environment a different species was introduced.

Upon the expiration of the first five-year distribution and management plan and another

similar five-year plan was introduced and accepted; however, since the introduction of the Blue-water Rearing Station, the plan for the 12th district has been revised.

Some of the objectives are to secure maximum fish production at minimum cost, secure proper stocking of waters consistent with use and demand, stock larger fish, stock preferably in July, a period of peak food availability and decreased hazards caused by high waters. According to Mr. Forest Keller, foreman of the Big Timber State Fish Hatchery unit, these objectives cannot be reached because of the limited hatchery facilities. Due to the demand for different trout species from each drainage area, all species must be raised. Loch Leven and Eastern Brook spawn in the fall while Rainbow and Cutthroat spawn in the spring; therefore, only six months are available to run each species in order to attain quantity.

In order to increase production and the size of fish leaving the hatchery, investigations are being made as to the feasibility of supplementing the present water supply and constructing the necessary raceways. At the present time, springs rising in gravel beds above the hatchery supply 500 gallons of clear water per minute during the period of peak flow, dropping to approximately 250 gallons per minute during the winter months. The water temperature remains at 52 degrees F. year round. Preliminary investigations have been started by Mr. Keller in an attempt to harness additional springs in the vicinity in order to have a sufficient water supply for the proposed raceways and two previously constructed ponds which do not receive an adequate supply of clear water at the present time.

Two types of raceways are now under consideration for the Big Timber State Fish Hatchery unit. One type is the self-cleaning circular concrete pool 40 feet in diameter. An advantage of this construction is that the debris and excess food collects on a screen covering the centrally located drainage pipe thus eliminating draining the pool and allowing the pool to be cleaned merely by cleaning the screen. The other type of raceway under consideration is a rectangularly built concrete unit composed of 10 feet by 100 feet raceways built in pairs so as to have a mutual wall.

With these added facilities and the able administration of the Big Timber Fish Hatchery unit, objectives previously set forward will more nearly be reached, thus enabling us to continue to look forward to that great sport, fishing.

GALLATIN NATIONAL FOREST — BIG TIMBER DISTRICT

The Big Timber District includes the southeastern portion of the Crazy Mountains that drains south and east to the Yellowstone River, and the Boulder River, Upper Deer Creek, Lower Deer Creek and Bridger Creek drainages that lie within the Gallatin National Forest. This area, although possibly appearing to be relatively restricted in size and operational scope, contains 595 square miles of unlimited resources that must be properly administered. To mention a few—the watershed, timber, wildlife, grazing land for sheep and cattle, and recreational facilities.

Of prime interest and importance is the actual watershed condition, for it is from these watersheds that water is derived for livestock, irrigation and household purposes within and below the Gallatin National Forest. The District Ranger strives to maintain or increase the watershed efficiency by supervision of all activities within the district.

Forest fires destroy timber, forage for game and livestock, game shelter, and recreational facilities. But the principal, long range effect of forest fires is destruction of water-holding capacities of watersheds. The Big Timber District has a written fire prevention and control plan. The plan is tied in with the plans of neighboring districts and national forests. Fire tool caches are maintained at strategic points throughout the district. Rancher cooperators, and sawmill operators living within or close to the district are furnished fire fighting equipment. They have written authority from the District Ranger to hire men if necessary to suppress forest fires within their respective areas. Fire school, attended by district personnel and local cooperators, are held each spring where fire prevention and control methods are discussed. The final day at each school is devoted to actual control and mopping up of a training fire set in a spot where there is little danger of the fire escaping beyond control.

The timber stand is composed principally of Limber pine in the higher elevations and Douglas fir, Lodgepole pine and Engelmann spruce in the lower elevations. All logging operations are under supervision, the timber to be cut being marked with a U. S. stamp. Charges are made according to the estimated board feet. In addition to this charge, a deposit of 25 to 50 cents per 1,000 board feet is required for brush disposal and a deposit of 25 cents per 1,000 board feet for erosion control. A widespread epidemic among the Douglas fir started in 1939 when, after a warm spell, a sudden intense cold wave froze the Douglas fir, thus weakening them and making good brood trees for infestation by the Douglas fir beetle. In April or May the beetles swarm. The female bores into the tree to lay her eggs in the cambium. After hatching, the grubs spread sideways eventually destroying the cambium and thus the tree. The only defense is the tree's ability to pitch them out; however, this can be done only when the tree is healthy. At the present time the infestation is spreading in the Boulder River area and a few spots have been noticed recently in the Crazy Mountains.

A wildlife population estimate has been made recently by rangers and local game wardens with the estimated population within the Big Timber District being: 3,500 mule deer, 50 elk, 70 moose, 120 black bear, 10 grizzly bear, 80 head of mountain goat and 25 head of bighorn sheep. The deer population is increasing, due possibly to the Buck Law practiced in Montana and to the "1080" coyote poison set out on private land outside the national forest boundary. The mountain goat were transplanted to the Crazy Mountains by the State Fish and Game Department in 1939 and have since shown an increase in population. They remain well above the deer, ranging on the high, rocky ridges in the summer and on the high southern slopes in the winter. The big-horn sheep are located near the headwaters of the Boulder River.

Livestock grazing should be classified under the grazing of sheep and cattle since different systems of management govern each activity. At the present time 18 bands of sheep, consisting of

800 to 1,200 head per band, are allowed 60 grazing days in the Big Timber District of the Gallatin National Forest between July 1 and September 15. Application for permits are filed January 1. An advisory board appointed by the Sweet Grass County Woolgrowers' Association meets with the rangers to decide who will be issued permits. Preference permits may be issued to those who have grazed in the national forests five years. The grazing fee is based in accordance with the price of mutton the previous year. The Bureau of Agriculture Economics' base for the payment is 4 cents per head per month as of 1926. The 1950 fee was approximately 8 to 9 cents per head per month. Because lamb and mutton prices rose in 1950, the 1951 fee will be correspondingly higher. In some areas the sheep run on an on-and-off basis, deriving part of their feed on private land. The fee is reduced accordingly.

At the present time approximately 1,500 head of cattle graze the lower ranges. The grazing period varies according to range conditions, the average being from June 16 to October 15. The base cow-month payment is 15 cents per head per month as of 1926 in accordance to the Bureau of Agriculture Economics. The 1950 fee was 59 cents per head per month. The fee will be higher in 1951 because of increased prices received by beef cattle producers in 1950.

Regular inspection of the range is made by rangers and the permittees to check sore spots caused by erosion due to grazing and trampling and trespass livestock, and to obtain the best use of the forage. Every precaution is taken to maintain the grazing land which is an important portion of the watershed.

Providing and maintaining recreational facilities within the district is another of the many activities of the forest ranger. In the Boulder area approximately 40 summer homes have been constructed on specially leased land. Campground areas free to the public have been cleared and maintained. And, cooperating with the State Fish and Game Department, tens of thousands of fish are planted each year in the streams in the Big Timber District. Forest Rangers also serve as deputy state game wardens, without pay.

The aims are to beneficially use the resources but in so using them to: 1, maintain or increase watershed efficiency through supervised logging and grazing, erosion control, fire control; 2, maintain or improve range conditions; 3, protect wildlife, and 4, increase recreational facilities. The overall aim is to gain integrated, multiple use of all available forest resources.

**SUMMARY OF IRRIGATED LAND BY RIVER BASINS IN THE
FOLLOWING COUNTIES COMPLETED TO DATE**

**Big Horn, Carbon, Custer, Golden Valley, Meagher, Musselshell, Rosebud, Stillwater,
Sweet Grass, Wheatland and Yellowstone**

RIVER BASIN	PRESENT IRRIGATED ACRES	IRRIGABLE ACRES UNDER PRESENT FACILITIES	MAXIMUM IRRIGABLE ACRES
Missouri River Basin			
Missouri River	3,622	1,290	4,912
Musselshell River	64,789	57,870	122,659
Smith River	30,304	18,398	48,702
	98,715	77,558	176,273
Yellowstone River Basin			
Big Horn River	46,916	14,851	61,767
Big Timber Creek	10,378	9,234	19,612
Boulder River	13,343	2,614	15,957
Clarks Fork	33,286	7,328	40,614
Little Big Horn River	17,134	9,844	26,978
Powder River	8,264	1,804	10,068
Rosebud Creek (Trib. to Stillwater River)	15,828	12,944	28,772
Rock Creek (Trib. to Clarks Fork)	58,482	16,867	75,349
Shields River	25	40	65
Stillwater River	11,661	3,459	15,120
Sweet Grass Creek	18,594	23,006	41,600
Tongue River	22,137	7,479	29,616
Yellowstone River	168,868	39,553	208,421
	424,916	149,023	573,939
Grand Total Missouri River Basin	98,715	77,558	176,273
Grand Total Yellowstone River Basin	424,916	149,023	573,939
Grand Total in the Counties Completed to Date	523,631	226,581	750,212

It was necessary to cover 11,517,397 acres in the above basins in order to complete the survey.

IRRIGATION SUMMARY OF SWEET GRASS COUNTY BY RIVER BASINS

Missouri River Basin—Regular Irrigation	PRESENT IRRIGATED ACRES	IRRIGABLE ACRES UNDER PRESENT FACILITIES	MAXIMUM IRRIGABLE ACRES
Musselshell River Drainage Basin			
Agnes Creek	166	0	166
American Fork	495	443	938
Blackaby Creek	0	182	182
Cedar Creek	0	17	17
Fish Creek	0	195	195
Gouglee Creek	0	97	97
North Fork of American Fork	238	133	371
O'Hearn Creek	39	75	114
Potato Creek	0	11	11
Sixshooter Creek	0	68	68
South Fork of American Fork	441	1,038	1,479
South Fork of Antelope Creek	0	145	145
Tony Creek	57	543	600
Unnamed Coulees (Trib. to Agnes Creek)	31	0	31
Unnamed Coulee (Trib. to Fish Creek)	0	8	8
Unnamed Coulee (Trib. to Gouglee Creek)	0	16	16
Unnamed Coulees (Trib. to O'Hearn Creek)	128	76	204
Unnamed Coulee (Trib. to Spring Creek)	0	6	6
Unnamed Spring (Trib. to Antelope Creek)	2	0	2
Unnamed Spring (Trib. to Fish Creek)	0	8	8
Unnamed Spring (Trib. to Gouglee Creek)	0	6	6
Unnamed Spring (Trib. to Tony Creek)	38	9	47
West Fork of Antelope Creek	0	59	59
Total	1,635	3,135	4,770
Grand Total Missouri River Basin	1,635	3,135	4,770
Yellowstone River Basin—Regular Irrigation			
Big Timber Creek Drainage Basin			
Amalong Creek	269	180	449
Big Timber Creek	3,261	550	3,811
Hailstone Creek	125	28	153
Long Gulch	50	99	149
McGerry Creek	14	0	14
Middle Fork Big Timber Creek	0	465	465
Mingled Water (Rock and Dry Creeks)	177	60	237
No. Fork Big Timber Creek	639	293	932
No. Fork Big Timber Creek			
Big Timber Creek Canal Company	3,094	4,056	7,150
Rock Creek	236	215	451
Swamp Creek	1,765	1,885	3,650
So. Fork Big Timber Creek	748	1,403	2,151
Total	10,378	9,234	19,612

IRRIGATION SUMMARY OF SWEET GRASS COUNTY BY RIVER BASINS

Yellowstone River Basin—Regular Irrigation (Cont'd)	PRESENT IRRIGATED ACRES	IRRIGABLE ACRES UNDER PRESENT FACILITIES	MAXIMUM IRRIGABLE ACRES
Boulder River Drainage Basin			
Basin Creek	0	10	10
Boulder River	6,923	2,009	8,932
Boulder River			
Dry Creek Canal Company	3,267	217	3,484
Bramble Creek	5	0	5
Castle Creek	7	0	7
East Boulder River	1,441	13	1,454
Elges Creek	0	26	26
Elk Creek	290	60	350
Elk Creek and Lost Cabin Creek	0	35	35
Ennis Creek	0	2	2
Graham Creek	25	0	25
Natural Bridge Draw	5	0	5
Pig Creek	1	0	1
Pig Creek and Springs	3	0	3
Sheep Creek	0	63	63
Unnamed Springs (Trib. to Boulder River)	163	124	287
Unnamed Springs (Trib. to Boulder River and on Miller Creek)	30	0	30
West Boulder River	1,183	55	1,238
Total	13,343	2,614	15,957
 Otter Creek Drainage Basin			
Dry Creek	485	838	1,323
Otter Creek	2,149	860	3,009
Otter Creek—Auwater Ditch Company	402	83	485
Tangen Coulee	91	0	91
Ten Mile Creek	414	94	508
Unnamed Spring (Trib. to Tangen Coulee)	0	155	155
Wheeler Creek	0	17	17
Total	3,541	2,047	5,588
 Sweet Grass Creek Drainage Basin			
Basin or Runaway Creek	0	376	376
Billy Creek	244	313	557
Cascade Creek or Hell Roaring Creek	16	0	16
Cayuse Creek	731	436	1,167
Crest Gulch (Trib. to Sweet Grass Creek)	0	3	3
Dead Beaver Creek	0	157	157
Dry Fork Sweet Grass Creek	48	15	63
East Fork Sweet Grass Creek	119	153	272
Fletcher Creek	0	51	51
Hamilton Creek	20	49	69
Middle Fork Sweet Grass Creek	48	0	48

IRRIGATION SUMMARY OF SWEET GRASS COUNTY BY RIVER BASINS

Yellowstone River Basin—Regular Irrigation (Cont'd)	PRESENT IRRIGATED ACRES	IRRIGABLE ACRES UNDER PRESENT FACILITIES	MAXIMUM IRRIGABLE ACRES
Mingled Water (Beaver, Harrison and Ramsey Creeks)	63	0	63
Mingled Water (Rye and Sweet Grass Creeks)	902	565	1,467
Rock Creek	0	119	119
Rye Creek	0	5	5
Sour Dough Creek	0	25	25
South Fork Cameron Creek	0	10	10
Spring Creek	373	20	393
Spring Creek (Trib. to Hamilton Creek)	0	1	1
Spring Creek (Trib. to Sweet Grass Creek)	0	54	54
Sweet Grass Creek	13,199	15,014	28,213
Sweet Grass Creek			
Sweet Grass Canal & Reservoir Co.	2,695	5,834	8,029
Unnamed Coulee (Trib. to Billy Creek)	20	0	20
Unnamed Coulee (Trib. to Cayuse Creek)	19	0	19
Unnamed Coulees (Trib. to Dead Beaver Creek)	0	204	204
Unnamed Coulees (Trib. to Sweet Grass Creek)	0	24	24
Unnamed Spring (Trib. to Hamilton Creek)	1	2	3
Unnamed Spring (Trib. to Sweet Grass Creek)	62	34	96
Wild Cat Creek	34	42	76
Total	18,594	23,006	41,600
Yellowstone River Drainage Basin			
Bailey Creek	104	69	173
Branch of Little Timber Creek	0	49	49
Bridger Creek	440	28	468
Cort Creek	12	15	27
Cort Creek and/or West Fork Little Timber Creek	138	13	151
Cow Creek	47	0	47
Duck or Gage Creek	75	0	75
East Fork Duck Creek	605	81	686
East Fork Upper Deer Creek	1	0	1
Frazier Creek	0	17	17
Henry or Indian Creek	52	0	52
Little Timber Creek	605	93	698
Lowell Creek	0	18	18
Lower Deer Creek	504	94	598
Mingled Waters (Duck and Alkali Creek)	176	55	231
North Fork Countryman Creek	0	3	3
Saw Mill Creek	41	7	48
Shingle Creek	5	0	5
Spring Creek	28	16	44
Spring Creek (Trib. to Yellowstone River)	158	10	168
Spring Basin Creek	17	0	17
Stonehouse Springs (Trib. to West Fork White Beaver Creek)	20	0	20
Unnamed Coulee (Trib. to Lower Deer Creek)	0	24	24
Unnamed Coulee (Trib. to West Fork White Beaver Creek)	0	8	8

IRRIGATION SUMMARY OF SWEET GRASS COUNTY BY RIVER BASINS

Yellowstone River Basin—Regular Irrigation (Cont'd)	PRESENT IRRIGATED ACRES	IRRIGABLE ACRES UNDER PRESENT FACILITIES	MAXIMUM IRRIGABLE ACRES
Unnamed Spring (Trib. to East Fork Duck Creek)	0	12	12
Unnamed Spring (Trib. to Hump Creek)	11	0	11
Unnamed Spring (Trib. to White Beaver Creek)	1	0	1
Upper Deer Creek	233	17	250
West Fork Duck Creek	543	38	581
West Fork White Beaver Creek	1	150	151
White Beaver Creek	0	182	182
Whitetail Creek	0	204	204
Yellowstone River	2,539	932	3,471
Yellowstone River			
Hunter's Hot Springs Canal Co.	2,536	921	3,457
Total	8,892	3,056	11,948
Grand Total Yellowstone River Basin	54,748	39,957	94,705

Missouri River Basin—Flood Irrigation

Musselshell River Drainage Basin

Andrews Creek	0	123	123
Big Coulee Creek	0	96	96
South Fork Big Coulee Creek	0	39	39
Unnamed Coulee (Trib. to Antelope Creek)	19	18	37
Total	19	276	295
Grand Total Missouri River Basin	19	276	295

Yellowstone River Basin—Flood Irrigation

Big Timber Creek Drainage Basin

Big Timber Creek	3	15	18
Grosfield Coulee	0	19	19
Total	3	34	37

Boulder River Drainage Basin

Boulder River	130	8	138
Elk Creek	33	0	33
Small Hopes Creek	20	0	20
Spring Creek	10	38	48
Total	193	46	239

Otter Creek Drainage Basin

Ten Mile Creek, Trib. of	0	68	68
Total	0	68	68

IRRIGATION SUMMARY OF SWEET GRASS COUNTY BY RIVER BASINS

Yellowstone River Basin—Flood Irrigation (Cont'd)	PRESENT IRRIGATED ACRES	IRRIGABLE ACRES UNDER PRESENT FACILITIES	MAXIMUM IRRIGABLE ACRES
Sweet Grass Creek Drainage Basin			
Sweet Grass Creek	0	168	168
Unnamed Coulees (Trib. to Sweet Grass Creek)	0	23	23
	Total	191	191
Yellowstone River Drainage Basin			
Jarret Creek	64	263	327
Lower Deer Creek	29	0	29
Mendenhall Creek	25	11	36
Ox Bow Creek	0	19	19
Prather Creek	92	0	92
Unnamed Coulee (Trib. to Lowell Creek)	0	17	17
Unnamed Coulee (Trib. to Mendenhall Creek)	4	0	4
Unnamed Coulee (Trib. to Yellowstone River)	63	1	64
Upper Deer Creek	0	2	2
West Fork Little Timber Creek	40	0	40
Work or Wirt Creek	19	31	50
	Total	336	680
Grand Total Yellowstone River Basin	532	683	1,215
Regular Irrigation			
Grand Total Missouri River Basin	1,635	3,135	4,770
Grand Total Yellowstone River Basin	54,748	39,957	94,705
Grand Total in Sweet Grass County	56,383	43,092	99,475
Flood Irrigation			
Grand Total Missouri River Basin	19	276	295
Grand Total in Yellowstone River Basin	532	683	1,215
Grand Total in Sweet Grass County	551	959	1,510
Regular and Flood Irrigation			
Grand Total Missouri River Basin	1,654	3,411	5,065
Grand Total in Yellowstone River Basin	55,280	40,640	95,920
Grand Total in Sweet Grass County	56,934	44,051	100,985

AUWATER DITCH COMPANY

The Auwater Ditch Company ditch diverts water by gravity from Otter Creek in the southwest quarter of the northwest quarter of Section 8, Township 2 North, Range 15 East in Sweet Grass County. The ditch traverses a generally southerly course of approximately six miles, above the low benches on the east side of Otter Creek, and supplies irrigation water to lands in Sections 19 and 30, Township 2 North, Range 15 East.

On October 27, 1900, Wm. and C. Auwater appropriated and filed a notice of appropriation (Book 19, Page 29 of Water Rights records in the Sweet Grass County Courthouse) for 500 miner's inches of water to be diverted from Otter Creek in Section 8, Township 2 North, Range 15 East on the east bank. The designated purposes were domestic, irrigation and other uses. The system description was given as a dam and ditch, which said ditch was 48 inches by 14 inches in size. The land description of intended place of use was described as Section 30, Township 2 North, Range 15 East.

On April 26, 1930, Articles of Incorporation of the Auwater Ditch Company were filed. The Company was incorporated for 40 years with capital stock of \$10,000 which was divided into 500 shares having a par value of \$20. The number of shares issued was 400. One share is equivalent to one miner's inch. The purpose for which the corporation was formed was for constructing, extending and maintaining the irrigation canal.

The ditch has recently been enlarged, cleaned and extended slightly so as to satisfy the demand for 400 miner's inches by the stockholders for the irrigation of lands lying below the ditch. The maintenance is done by the stockholders, thus reducing costs so that the cost of water per irrigated acre is negligible.

In 1950 there were 402 acres being irrigated under this system with 83 acres potentially irrigable, making a maximum of 485 acres irrigable under existing facilities.

BIG TIMBER CREEK CANAL COMPANY

On June 24, 1895, Andrew Wormser, Anna J. Wormser and D. J. Walvoord associated themselves together for the purpose of forming the Holland Irrigation Canal Company. The term of corporation was designated as 40 years with capital stock of \$150,000 divided into 30,000 shares having a par value of \$5.00. The Corporation filed a notice of appropriation for 50,000 miner's inches of water to be diverted from the North Fork of Big Timber Creek on the east bank 1,024 feet north of the southwest corner of the southeast quarter of Section 23, Township 3 North, Range 13 East, and used to furnish water to settlers in Township 3 North, Range 13 East, Townships 2 and 3 North, Range 14 East and Townships 2 and 3 North, Range 15 East. A ditch which traverses approximately 11 miles was constructed from the point of diversion, and traverses a general northeasterly course terminating in the southwest quarter of Section 10, Township 3 North, Range 14 East. The east branch of the ditch traverses approximately three miles in a general southeasterly direction from its point of diversion from the main canal in the southwest corner of Section 21, Township 3 North, Range 14 East. Subsequent to this time the ditch became commonly known as the Wormser Ditch. The Holland Irrigation Canal Company also constructed works not presently incorporated in the system of the Big Timber Creek Canal Company and have therefore been omitted from this report.

In 1908 the Glass-Lindsey Land Company incorporated and took over the Holland Irrigation Canal Company, and in addition let contracts for the construction of dams, reservoirs and canals, which said system was to take flood waters from Sweet Grass Creek, impound the water in reservoirs and thence distribute the water for irrigation to settlers in the area, who at that time were acquiring land under the Carey Land Act. The latter system was completed in 1911 and is now

under the control of the Sweet Grass Canal and Reservoir Company. At the time of construction and for a short period subsequent to that time the two systems were sometimes referred to as the Big Timber Carey Act Project since they supplied water to much of the land in that vicinity acquired under the Act.

In the Spring of 1910 the Sweet Grass Canal and Reservoir Company was incorporated for a term of 40 years in the amount of \$40,000 which was divided into 40,000 shares having a par value of \$1.00. A share was designated to entitle the holder to 1½ acre-feet of water per acre during each and every irrigating season. Until March of 1945, at which time the users under the Wormser Ditch formed a corporation known as the Big Timber Creek Canal Company, the Corporation controlled both the Wormser Ditch and the Sweet Grass Canal and Reservoir system.

The Sweet Grass Canal and Reservoir Company filed a notice of appropriation in 1919 on an additional 3,000 miner's inches of the waters of the North Fork of Big Timber Creek to be conveyed through the Wormser Ditch and used in Township 3 North, Range 13 East and Townships 2 and 3 North, Range 14 East.

In Sweet Grass County Case No. 483, the adjudication of the waters of Big Timber Creek and its tributaries, right No. 23b, consisting of 1,000 miner's inches from Big Timber Creek, was decreed to Glass-Lindsey Land Company for the Wormser Ditch. Four years later, in Case No. 36-483, the original decree was modified so as to entitle the Glass-Lindsey Land Company to 1,770 miner's inches instead of the 1,000 miner's inches previously decreed.

The Big Timber Creek Canal Company filed Articles of Incorporation on March 31, 1945, and purchased and acquired all of the right, title and interest which the Sweet Grass Canal and Reservoir Company had in the irrigation canal, commonly known as the Wormser Ditch, and water and water rights conveyed therein. The term of existence was designated as 40 years with capital stock of \$25,000 divided into 2,500 shares having a par value of \$10.

The cost of water per irrigated acre is \$1.00 with 96 cents going toward operation and maintenance and 4 cents to reduce the small indebtedness of the corporation. The physical condition of the system is generally good; however, there are a few short sections that are only fair due to the porous land over which the ditch traverses. The water supply is considered to be adequate except during the last of the irrigating season when the water supply in Big Timber Creek is greatly reduced.

In 1950, 1,615 shares of stock were subscribed with 3,094 acres being irrigated and 4,056 acres potentially irrigable, or a maximum irrigable acreage of 7,150 under existing facilities.

COMPANY, OR BOGGS, MUTUAL DITCH

The Company (or Boggs) Ditch taps Sweet Grass Creek on its easterly bank at a point in the southeast quarter of the southwest quarter of Section 4, Township 1 North, Range 16 East by means of a brush and rock dam and wood headgate. It runs thence five and one-fourth miles in a southerly direction more or less parallel to Sweet Grass Creek, over and across Sections 8, 9, 16, 17, 20, 29 and 30, all in Township 1 North, Range 16 East. In 1950, 596 acres were irrigated under the system, utilizing practically all irrigable land under the ditch. Only six acres are potentially irrigable, making a maximum irrigable acreage of 602 under existing facilities.

The Company Ditch was decreed December 3, 1941 (Case No. 1793). The parties to the action were decreed the right to convey through said ditch their appropriations, as follows:

Party to Action	Person to Whom Decreed in Sweet Grass Creek Decree	Miner's Inches	Date of Priority
Thorvald Sandem and Pete Peterson, jointly	Jacob Hoyem	75	8/2/1884
Anne Wangsmo	Iver M. Hoyem	110	8/2/1884
Miller Pederson	Hans Peterson	136	8/2/1884
Lena Becken	B. L. Ryan	95	8/2/1884
Mattie Shaw	Fred Bartels	112	8/2/1884
Federal Land Bank and W. T. Broderick, jointly	Henry Bartels	126	5/15/1893
Cyrus L. Boggs	Rostad & Becken	192	5/15/1893

The canal is in good condition, having been cleaned and repaired in 1949 so as to insure the conveyance of the full 846 miner's inches decreed. The water supply is generally considered to be adequate and the rights are of relatively early priority.

CONWELL MUTUAL DITCH

On November 29, 1905, Geo. B. Conwell, Theo. Murray, Thomas Newspalmer, Geo. Reynolds and Lee Wideman jointly appropriated 1,250 miner's inches of water to be diverted by gravity from the right bank of Boulder River in Lot 5 of Section 2, Township 1 South, Range 14 East. The description of the system was given as a ditch and headgate which said ditch will be 72 inches by 36 inches in size and will carry and conduct 31.25 cubic feet per second of time of the waters from said creek. This notice of appropriation was filed on December 5, 1905, and is recorded in Book 19 of Water Rights records on Page 246 in the Sweet Grass County Courthouse.

The ditch diverts water from the Boulder River near the north line of Lot 5 of Section 2, Township 1 South, Range 14 East and traverses 5½ miles in a northeasterly direction above the low benches lying east of Boulder River. Water is supplied to five users who share the work and expense for the upkeep of the system, and each receive an equal share of water. The system is in good repair, being capable of supplying adequate water to all users. In 1950, 522 acres were irrigated under the Conwell Ditch with 377 acres potentially irrigable, making a maximum of 899 acres irrigable under existing facilities.

DRY CREEK CANAL COMPANY

On May 14, 1898, the Dry Creek Canal Company was incorporated for the purposes of constructing an irrigation system and appropriating water from the Boulder River and conveying it from the point of diversion in the southwest quarter of the northeast quarter of Section 10, Township 1 South, Range 14 East, over the low bench lands to irrigable acres which would be under the system in Townships 1 North and 1 South of Ranges 14 and 15 East. The Dry Creek Canal Company Ditch was constructed and put into operation in 1901.

The Corporation received a right-of-way for its ditch through a pre-existing ditch built by Charles Dodge and Charles McKenzie in 1893, sometimes referred to as the Mormon Ditch, and enlarged and extended the system for its use. Two water appropriations were made and notices of appropriation were filed in the County Courthouse by the Dry Creek Canal Company for water from the Boulder River which was to be diverted by the system. The first of these appropriations was filed March 5, 1901, for 2,000 miner's inches and the second one filed August 18, 1903, for 4,200 miner's inches.

In 1950 the ditch traversed a distance of approximately seven miles from its point of diversion to a point a few yards west of the east section line of Section 30, Township 1 North, Range

15 East. In addition to maintaining this ditch the Corporation also maintains a half mile spill which carries water from the end of the ditch into Dry Creek. Numerous mutual laterals which divert water from the main ditch and Dry Creek serve the water users. Of these laterals, two are of major importance. The upper mutual lateral traverses in a generally southeasterly direction from the end of the main ditch for a distance of ten miles and supplies water to five users. The lower mutual lateral which supplies water to nine users, picks up its water from Dry Creek approximately 1/10 of a mile south of the north quarter corner of Section 32, Township 1 North, Range 15 East and traverses 5½ miles in the same general direction as the upper mutual lateral.

On November 6, 1937, the Corporation's charter was extended 40 years. The capital stock of \$48,000 was divided into 320 shares having a par value of \$150. In 1950 the number of shares actually subscribed was 142, one share being equivalent to 40 miner's inches. An assessment of \$7 per share was made in 1950 for maintenance of the system. The cost of water from the Corporation's system was approximately 20 cents per irrigated acre. In addition to this charge, the water user must also pay for the maintenance of the lateral which delivers water from the Corporation's system to the place of intended use. The assessment for the maintenance of the mutual laterals is based upon the expenses incurred down to the point where the lateral crosses the lower point of the individual's land and the number of shares in the Corporation held by that individual. The overall cost of water per irrigated acre is generally less than 50 cents.

In 1950 there were 3,267 acres irrigated under the Dry Creek Canal Company Ditch and the mutual laterals which derive water from the Corporation's system, with a potential acreage of 217, making a maximum of 3,484 acres irrigable under existing works.

ELLISON MUTUAL DITCH

In 1889 James Andrews and John Ellison jointly appropriated 650 miner's inches of water to be diverted by gravity from the Boulder River in Section 21, Township 1 South, Range 14 East, the water to be used to irrigate the lands in Sections 10 and 15 of Township 1 South, Range 14 East. On February 19, 1901, the Ellison Ditch was decreed. Case No. 169, as follows:

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	Amount
James Andrews	Lots 2, 3, NW¼SW¼	10	1S	14E	210 M.I. or 3/10 int.
Benjamin S. Hollopeter	NW¼	10	1S	14E	140 M.I. or 1/5 int.
*Elizabeth Ellison	Lot 7, NE¼SW¼, S½SW¼, S½NW¼	3	1S	14E	240 M.I. or 11/35 int.
*John Ellison	Lot 4 Lots 1, 2, 3, 4	10 15 16	1S 1S 1S	14E 14E 14E	350 M.I. or 1/2 int.

*240 miner's inches belonging to John Ellison were deeded to Elizabeth Ellison; however, John Ellison retained the license to use said water at such times as Elizabeth Ellison did not require and was not using said 240 miner's inches of said water.

On May 6, 1905, John Ellison filed a notice of appropriation for 500 miner's inches of additional water from the Boulder River to be conveyed through the Ellison Ditch for the irrigation of land in Sections 15 and 16, Township 1 South, Range 14 East. These two appropriations are on file in the Sweet Grass County Courthouse in Book 18 of Water Rights records, Page 440 and Book 19 of Water Rights records, Page 232.

Except in extremely dry years the water supply is fully adequate to supply the users' demands. Because much of the area under the ditch is covered with rocks and boulders and because of the lack of a hardpan, abundant water is required for the proper irrigation of these

lands. Due to the absence of hardpan, the application of abundant water does not cause harmful alkali concentrations.

In 1950, 849 acres were irrigated under the Ellison Ditch, with no potentially irrigable land lying under the system.

HARRISON MUTUAL DITCH

The Harrison Mutual Ditch, located at the mouth of Sweet Grass Creek, traverses above the low benches north of the Yellowstone River for a distance of 4½ miles. The ditch heads near the center of the northeast quarter of the southeast quarter of Section 30, Township 1 North, Range 16 East and diverts water by gravity from the east bank of Sweet Grass Creek by means of a wooden headgate.

In 1882, Waborn A. Harrison constructed the Harrison Ditch and diverted water from Sweet Grass Creek to irrigate lands lying under the system in Section 31, Township 1 North, Range 16 East and Sections 4, 5, 8, 9 and 16 in Township 1 South, Range 16 East. The land was subsequently subdivided and controversies over water use from the ditch brought a Court decree of the ditch on September 26, 1900, as follows:

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.	Interest in Ditch
Andrew Forsythe	E½NE¼, SW¼NE¼, NW¼SE¼, NE¼SW¼, SE¼NW¼, and all land lying No. of Yellowstone River	5	1S	16E	200	1/5
Waborn A. Harrison	SE¼ Lots 1, 2, 3 Lots 1, 2, 3, NE¼NE¼ All	31	1N	16E		
		5	1S	16E		
		8	1S	16E		
		9	1S	16E	600	3/5
Herman Uttermohle	W½SW¼, SW¼NW¼ E½SE¼, SW¼SE¼	4	1S	16E		
		5	1S	16E	200	1/5

In the Sweet Grass Creek Decree, Case No. 342, on April 6, 1906, Andrew Forsythe, W. A. Harrison and Herman Uttermohle received the right to the use of a total of 785 miner's inches of the waters of Sweet Grass Creek. Because of later land division the amount of water now decreed to the users under the Harrison Ditch totals 722 miner's inches. The ditch is of sufficient capacity to convey the entire amount so decreed.

In 1950, the cost of water per irrigated acre was 51 cents, all of which was used for operation and maintenance of the system. The amount of water used upon the lands was 697 miner's inches; however, because of seepage and evaporation the entire 722 miner's inches was diverted so as to insure the four users of sufficient water.

In 1950, there were 653 acres irrigated with 68 acres potentially irrigable under the existing works, or a maximum irrigable acreage of 721 under the existing facilities of the Harrison Mutual Ditch.

HOGAN DITCH COMPANY

The Hogan Ditch Company was incorporated in 1921 to ". . . construct, purchase, acquire and maintain irrigating ditches, dams, headgates and flumes and rights of way therefor, and to

carry and conduct water appropriated and diverted from the left bank of the Boulder River at a point on its left bank on lots three (3) and four (4) in Section 23, Township 1 North, Range 14 East, and from thence said water is to be conducted through the irrigation ditch known locally as the "Hogan Ditch." Said ditch extends from said point of diversion in a northwesterly and northerly direction through and across said Section 23 and Sections 14 and 13 and onto portions of 11 and 12 in said Township and Range, and terminating on Sections 11 and 12 . . ."

The Company filed incorporation papers November 25, 1921, with the amount of capital stock being \$15,000 divided into 150 shares having a par value of \$100. The amount of capital stock which was actually subscribed was \$9,425. The term of incorporation was designated as 40 years.

On April 24, 1889, Daniel Hogan appropriated 600 miner's inches from the Boulder River to be conveyed through the Hogan Ditch to irrigate lands in Section 14, Township 1 North, Range 14 East. The filing was made April 30, 1889, and is recorded in Book 18 of Water Rights records on page 347 in the Sweet Grass County Courthouse.

At the present time the Hogan Ditch Company is operated as a mutual ditch, having eight users, all of whom help to maintain the ditch. The ditch, for its entire length, 2½ miles, is in good condition and supplies sufficient water to the users. In 1950, 224 acres were irrigated under the existing facilities, with 8 acres potentially irrigable, making a maximum of 232 irrigable acres.

HUNTER'S HOT SPRINGS CANAL COMPANY

On October 9, 1907, Andrew M. and Julia B. Clark and W. D. and Maggie McKenzie associated themselves together for the purpose of forming the Hunter's Hot Springs Canal Company. The purpose of the Company was to supply stockholders and other consumers with water from the Yellowstone River for irrigation and other useful and beneficial purposes, and to appropriate and acquire water rights and the necessary irrigating ditches and the appurtenances thereto and to construct ditches. The Company was incorporated for twenty years with 63 shares of stock having a par value of \$600, making a capital stock of \$37,800. The number of shares actually subscribed was 33⅓. On April 5, 1929, approximately two years after the expiration of the corporation charter, the Company was reincorporated under the same name in the amount of \$37,800, which was divided into 63 shares having a par value of \$600. The number of shares actually subscribed was 33-5/6. In 1950, 63⅓ shares were subscribed.

Four notices of appropriation were filed by Andrew M. Clark and W. D. McKenzie for waters from the Yellowstone River to be conveyed in the Hunter's Hot Springs Canal Company Ditch to and upon lands lying in Township 1 South, Range 12 East; Township 1 South, Range 13 East and Township 1 North, Range 13 East. The first appropriation for the system was made October 30, 1897 for 1,000 miner's inches and filed November 19, 1897; the second appropriation was made June 1, 1899 for 1,000 miner's inches and filed on June 19, 1899; the third appropriation was made May 13, 1901 for 1,500 miner's inches and filed June 1, 1901; the fourth appropriation was made June 2, 1902, for 2,000 miner's inches and filed June 3, 1902. The first and second notices of appropriation are on file in Book 3 of Water Rights records on Pages 60 and 155 respectively, in the Park County Courthouse. The third notice of appropriation is on file in Book 7 of Miscellaneous Records on Pages 557-558 in the Park County Courthouse. The fourth notice of appropriation is on file in Book 18 of Water Rights records on Page 161 in the Sweet Grass County Courthouse.

The Hunter's Hot Springs Canal Company Ditch diverts water by gravity from the Yellowstone River by means of a rock and concrete diversion wing and a concrete headgate on the north bank near the north line of the northwest quarter of the northeast quarter of Section 28, Town-

ship 1 South, Range 12 East in Park County. The ditch traverses thence generally northeasterly and terminates near the center of the north line of the northeast quarter of Section 25, Township 1 North, Range 13 East. Aside from the rock and concrete diversion wing and concrete headgate there are several large works. These works include a concrete siphon under a small unnamed coulee approximately one mile below the head of the ditch, a metal flume across Dog Creek, a concrete dam with steel spillgates across Duck Creek, two metal flumes across small unnamed coulees approximately two miles east of Duck Creek, a metal flume across Ox Bow Creek, a concrete flume across an unnamed coulee between Ox Bow and Camp creeks, and a metal flume across Camp Creek. All of these structures are in good condition.

At the present time Hunter's Hot Springs Canal Company ditch conveys water to eight stockholders, or water users. Most of the irrigated and irrigable land lies in Sweet Grass County; only 18 irrigated acres and 32 irrigable acres under the ditch are situated in Park County. In 1950 there were 2,554 acres being irrigated under the Hunter's Hot Springs Canal Company Ditch with a potential acreage under existing works of 953, making a total of 3,507 acres irrigable under existing facilities.

KENT MUTUAL DITCH

The Kent Ditch, sometimes known as the Grey Cliff Ditch, is about 7½ miles long, traversing the low benches south of the Yellowstone River between the mouth of Bridger Creek and the town of Reed Point. It diverts water from the Yellowstone River in the northwest quarter of the northwest quarter of Section 19, Township 1 South, Range 17 East, traversing generally southeasterly from its point of diversion to a point approximately one mile west of Reed Point.

At the present time there are eight users, each party contributing an equal proportion in money or labor to the expense of the maintenance of said ditch down to the point where it crosses the lower point of his land. The average cost of water per irrigated acre is \$1.00, with the entire amount being spent for operation and maintenance. In addition to the eight present users, three users on the lower end of the ditch have discontinued using the system because of the unreliable water supply, cost of water and the fact that their lands on these low benches are partially subirrigated by the Yellowstone River.

On May 26, 1921, the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass, decreed the Kent Ditch (Case No. 1149). The users were decreed the right to convey their prescribed amounts of water through the Kent Ditch for use upon lands to which the rights are appurtenant, as follows:

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.	Date of Priority
John Barstad and Ole J. Messing, jointly	N½SW¼, Lots 3, 4, 8 NE¼SW¼ (less 10 Ac.)	28	1S	17E	200	7-1-1894
Josie K. Bostwick,	Lot 4, NE¼SE¼, S½SE¼	19	1S	17E		
Ella K. Cashen,	Lot 5	27	1S	17E		
Elizabeth K. McComas &	Lot 7, S½SE¼	28	1S	17E		
Mary K. Stevens, jointly	N½NE¼ (less 19.94 Ac.)	33	1S	17E	400	7-1-1894
J. S. Dillon	E½NW¼, SW¼NE¼, Lot 2	29	1S	17E	200	7-1-1894
M. A. Farnsworth	SE¼SW¼ W½NE¼, NE¼NW¼	25	1S	17E	200	7-1-1894
H. G. Fleming	SE¼NE¼, E½SE¼, NW¼SE¼	36	1S	17E	200	7-1-1894
Sidney Fraser	NW¼SW¼, NW¼NE¼, Lots 1, 2, 3, 4, 5, 6, 8	29	1S	17E	200	7-1-1894
Joseph Lay	Lot 6	20	1S	17E	200	7-1-1894
		27	1S	17E		

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.	Date of Priority
Newton Lay	S $\frac{1}{2}$ S $\frac{1}{2}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$	33	1S	17E		
	Lots 2, 3, NW $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$	34	1S	17E	100	7-1-1894
	SW $\frac{1}{4}$ SW $\frac{1}{4}$	20	1S	17E		
John Muller	W $\frac{1}{2}$ NW $\frac{1}{4}$	29	1S	17E	200	7-1-1894
	Lots 6, 7, 8	26	1S	17E		
	Lot 1	34	1S	17E		
Pleun Roobol	N $\frac{1}{2}$ NW $\frac{1}{4}$	35	1S	17E	100	7-1-1894
	Lot 5, W $\frac{1}{2}$ SW $\frac{1}{4}$	25	1S	17E		
	Lots 5, 9	26	1S	17E		
	NE $\frac{1}{4}$ NE $\frac{1}{4}$	35	1S	17E		
	E $\frac{1}{2}$ E $\frac{1}{2}$	17	2S	17E	200	7-1-1894

Although not incorporated, the predecessors in interest entered into certain articles of agreement called the "Agreement of Shareholders in the Grey Cliff Ditch" whereby the rights and duties of the shareholders were defined. On August 29, 1904, twelve parties jointly filed on 3,000 miner's inches of water appropriated in the spring of 1894 which was diverted from the Yellowstone River and carried through the Kent, or Grey Cliff Ditch to and upon lands lying along the Yellowstone River in Township 1 South, Ranges 16, 17 and 18 East. This appropriation is on file in Book 19, Page 212 of Water Rights records in the Sweet Grass County Courthouse.

In 1945 the headworks were taken out by flood waters. The headworks were reconstructed in the fall of 1947 at a cost of \$5,000, only to be taken out again by flood waters in the spring of 1948. Due to the lack of adequate works and the flat grade of the ditch, the water supply is wholly inadequate after the recession of the spring runoff. Increasing the grade by diverting water further up the river and constructing substantial headworks is contemplated.

In 1950 there were 948 acres being irrigated under the Kent Ditch with a potential acreage under existing facilities of 97 or a maximum of 1,045 irrigable acres.

MCLEOD MUTUAL DITCH

In the year 1889 a ditch locally known as the "McLeod Ditch" was constructed, tapping the Boulder River on its left bank approximately one mile below the natural bridge in the southeast quarter of the northeast quarter of Section 23, Township 3 South, Range 12 East and traversing generally northeasterly for six miles and terminating in the northwest quarter of the northwest quarter of Section 33, Township 2 South, Range 13 East where it spills into a small dry coulee. The original appropriation and filing of the notice of appropriation were made jointly by G. W. Baker, E. O. Clark, C. Cottle, E. E. Fowler, L. N. Lepley and W. F. McLeod on May 16, 1889, for 2,000 miner's inches from the Boulder River. This appropriation is filed in Book 18 of Water Rights records on Page 349 in the Sweet Grass County Courthouse.

On January 5, 1906, the McLeod Ditch was decreed in the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass, Case No. 332, as follows:

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.
C. W. Baker	W $\frac{1}{2}$ SW $\frac{1}{4}$	13	3S	12E	
	E $\frac{1}{2}$ SE $\frac{1}{4}$	14	3S	12E	
	E $\frac{1}{2}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$	23	3S	12E	100
P. A. Bruffey	W $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$	13	3S	12E	
	SE $\frac{1}{4}$ NE $\frac{1}{4}$	14	3S	12E	100
Charles Cottle	W $\frac{1}{2}$ SW $\frac{1}{4}$	5	3S	13E	
	NE $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$	6	3S	13E	100

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.
W. F. McLeod	SW $\frac{1}{4}$ NW $\frac{1}{4}$	5	3S	13E	
	Lot 7, E $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$	6	3S	13E	
	W $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$	7	3S	13E	100
William Nelson	Lots 3, 4, SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$	5	3S	13E	66 $\frac{2}{3}$
Frank Webber	E $\frac{1}{2}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$,				
	S $\frac{1}{2}$ SW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$	32	2S	13E	
	W $\frac{1}{2}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$	33	2S	13E	133 $\frac{1}{3}$

In 1950, the McLeod Ditch was in good condition, having been enlarged and cleaned in the spring of 1950 so as to convey the entire 600 miner's inches decreed to the users. The labor required to maintain the system is supplied by the users in proportion to their respective rights; therefore, the cost of water per irrigated acre, although very slight, cannot be computed. The water supply is considered to be sufficient during years with average or above average runoff.

In 1950, 644 acres were irrigated under the McLeod Ditch with a potential acreage under existing works of 14, or a maximum of 658 irrigable acres.

PIONEER DITCH COMPANY (Dissolved)

On June 5, 1893, J. A. Cox and Wm. E. Ryan appropriated 2,500 miner's inches of water to be diverted by gravity from the Boulder River on its east bank in Section 23, Township 1 North, Range 14 East. The designated purpose was for the irrigation of their ranches on the south side of Yellowstone River below the town of Big Timber and for selling said water to other ranches in the vicinity. The description of the system was given as a ditch 84 inches by 96 inches in size. The notice of appropriation was filed June 12, 1893, in the Sweet Grass County Courthouse and is recorded in Book 18 of Water Rights records on Page 43. The ditch was actually constructed and put into use in 1893, the point of diversion being in the northwest quarter of the southeast quarter of Section 23, Township 1 North, Range 14 East.

On February 16, 1901, the Pioneer Ditch, then known as the Ryan Ditch, was decreed, Case No. 171, as follows:

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.	Priority
Robert Vestal	All south of Yellowstone River	16	1N	15E		
	N $\frac{1}{2}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$	21	1N	15E	200	1st
A. M. Taylor	S $\frac{1}{2}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$	21	1N	15E	200	2nd
Wm. E. Ryan	E $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$	20	1N	15E	400	3rd

The Pioneer Ditch Company was incorporated, as such, on March 23, 1904. The purpose for which the Company was formed was to acquire and construct irrigating ditches, flumes and headgates and to acquire water rights to be taken from the Boulder River. The Ryan ditch was to be used and extended so as to convey the water to a point on West Deer Creek or any intermediate point, the water to be used for domestic, irrigating and other purposes. The Company was incorporated for a term of twenty years with the amount of capital stock being \$20,000 divided into 200 shares with a par value of \$100. The amount of capital stock actually subscribed was 51 shares. The Company charter expired in 1924 and has not been renewed.

On October 14, 1906, the Pioneer Ditch Company appropriated an additional 3,000 miner's inches from the Boulder River to be carried and conveyed through the Pioneer Ditch Company Ditch which was enlarged so as to be seven feet wide and four feet deep and capable of conveying the additional water to lands in Township 1 North, Ranges 14 and 15 East and Township 1 South, Range 15 East. This appropriation was filed October 17, 1906, in the Sweet Grass County Courthouse and is recorded in Book 18 of Water Rights records on page 200.

In 1950, the canal was 3½ miles in length and capable of conveying 3,000 miner's inches of water for use by the stockholders on their lands lying below the ditch. The water supply is considered to be adequate except in extremely dry years. All of the necessary annual labor required to clean out and repair the ditch is performed by the water users, the only charge made for the water being \$1.00 per share which is to be used to pay the water master.

In 1950, 792 acres were irrigated and 306 acres potentially irrigable, making a maximum of 1,098 acres irrigable under existing facilities.

POST-KELLOGG MUTUAL DITCH

The Post-Kellogg Ditch taps the Boulder River on its left bank near the center of Lot 7 of Section 3, Township 1 South, Range 14 East. It traverses thence 4½ miles generally northeasterly above the low river benches and below the surrounding tablelands to a point approximately ½ mile southwest of Big Timber where it turns sharply to the west and southwest and traverses 3½ miles to a point in the southwest quarter of the northwest quarter of Section 31, Township 1 North, Range 14 East where it dumps into a dry coulee. The water is then picked up by private ditches which irrigate lands lying in Sections 20, 30 and 31, Township 1 North, Range 14 East and Section 25, Township 1 North, Range 13 East.

The original ditch was constructed by Elmer H. Budd who settled in the area before the land was opened to settlement. Subsequently he acquired a squatter's right. J. H. White later homesteaded in the area and extended the Budd ditch so as to supply water to his homestead. E. H. Budd and J. H. White jointly appropriated and filed a notice of appropriation for 300 miner's inches of the waters of Boulder River for the irrigation of lands lying in Section 3, Township 1 South, Range 14 East and Section 27, Township 1 North, Range 14 East. Judd Post later enlarged and extended the system. Since H. O. Kellogg owned most of the land under the extended portion of the system, the mutual ditch became known as the Post-Kellogg Ditch.

On March 27, 1907, the District Court of the Sixth Judicial District of the State of Montana decreed the Post-Kellogg Ditch (Case No. 366). The users were decreed the right to convey their prescribed amounts of water through the Post-Kellogg Ditch for use upon lands to which the rights are appurtenant, as follows:

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge	M.I.	Priority
Elmer H. Budd	Lots 1, 2, SW¼SE¼, SE¼NE¼	27	1N	14E	150	7-15-1895
B. S. Hollopeter	Lot 4	2	1S	14E		
	Lots 1, 2, 5, 6	3	1S	14E	150	7-15-1895
Hugh C. Perrine	Lots 1, 2, 3, NW¼NW¼	26	1N	14E	150	5-1-1898
H. O. Kellogg	S½NE¼, NW¼SE¼, NE¼SW¼	29	1N	14E	125	5-1-1901
J. A. Post	S½SW¼, W½SE¼	20	1N	14E	500	5-1-1901

Since the Decree, two appropriations have been filed for water from the Boulder River, said water being conveyed to lands under the system. The first of these appropriations was made and filed May 6, 1908 by H. O. Kellogg in the amount of 150 miner's inches to be used for the irrigation of lands in and adjoining Section 29, Township 1 North, Range 14 East and for live-stock and domestic purposes. The second of these appropriations was made and filed by B. S. Hollopeter et ux on August 3, 1908, in the amount fo 300 miner's inches. The land to be irrigated was designated as land in Section 3, Township 1 South, Range 14 East and Section 34, Township 1 North, Range 14 East.

A concrete and wood headgate measuring 12 feet on the bottom, 3 feet on top and being 16 feet in length diverts the water from the Boulder River. A smaller headgate and spillgate is situated down the ditch to regulate the ditch water. Above the spillgate approximately 300 yards of the ditch have been concrete lined to stop erosion. Considerable bentonite has been used in those sections of the ditch that traverse through porous sandstone.

In 1950 the cost of water per irrigated acre was \$2.00, all of which was used for operation and maintenance of the system. The amount of water used was 1,415 miner's inches; however, because of seepage and evaporation considerably more water must be conveyed through the ditch to insure the thirteen users of sufficient water. In 1950 there were 1,226 acres irrigated with 95 acres potentially irrigable under the existing works, or a maximum irrigable acreage of 1,321 under the existing facilities of the Post-Kellogg Ditch.

PRATHER-MAYBORN-WESTFALL MUTUAL DITCH

The Prather-Mayborn-Westfall Mutual Ditch, sometimes known as the Prather-Warren-Carney Ditch, diverts water from the Yellowstone River in the southeast quarter of the southwest quarter of Section 7, Township 1 South, Range 13 East by gravity by means of a wood headgate set into a sheer rock bluff. For approximately eight miles the ditch traverses above the low benches bordering the south bank of the Yellowstone River.

On May 1, 1893, Thomas Prather, William Mayborn and Joseph Westfall jointly appropriated 4,000 miner's inches of water to be diverted from the Yellowstone River and conveyed through a ditch measuring 96 inches by 48 inches to and upon lands in Sections 1, 2, 7, 8, 9, 10, and 11 in Township 1 South, Range 13 East. The notice of appropriation was filed July 28, 1894, and is on file in Book 18 of Water Rights records on Page 446 in the Sweet Grass County Courthouse. On February 28, 1907, 900 miner's inches of water were decreed to be conveyed through the Prather-Mayborn-Westfall Ditch and to the parties and lands as follows (Case No. 380):

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M I.
J. H. Ammerman	Lots 10, 11, 12	3	1S	13E	
	Lots 12, 13	4	1S	13E	
	NE $\frac{1}{4}$	9	1S	13E	
	NW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$	10	1S	13E	240
John Carney	Lots 6, 7, SE $\frac{1}{4}$	8	1S	13E	150
	NW $\frac{1}{4}$ SE $\frac{1}{4}$, W $\frac{1}{2}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$,	1	1S	13E	
Lucinda J. Prather	Lots 7, 8, 9, 10, 11, SE $\frac{1}{4}$ SW $\frac{1}{4}$,				
	S $\frac{1}{2}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$	2	1S	13E	
	Lot 9	3	1S	13E	
	NE $\frac{1}{4}$ NE $\frac{1}{4}$	10	1S	13E	
C. W. Voges	NW $\frac{1}{4}$ NW $\frac{1}{4}$	11	1S	13E	
	NE $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$	12	1S	13E	300
	W $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, Lot 4	36	1N	13E	
	S $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$, Lot 5	31	1N	14E	150
Elizabeth Woods	Lot 1, S $\frac{1}{2}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$	7	1S	13E	
	Lot 9, SE $\frac{1}{4}$ SE $\frac{1}{4}$	9	1S	13E	
	N $\frac{1}{2}$ NE $\frac{1}{4}$	18	1S	13E	60

The ditch is in very good repair, having been cleaned in 1950 so as to insure conveyance of the full 900 miner's inches decreed by Court to the ditch owners and users. In 1950 there were 1,135 acres irrigated under the system with 270 acres potentially irrigable, making a total of 1,405 irrigable acres under existing facilities.

SWEET GRASS CANAL AND RESERVOIR COMPANY

On September 24, 1906, Alex J. Glass filed a notice of appropriation for 20,000 miner's inches of the flood waters of Sweet Grass Creek. This appropriation is on file in the Sweet Grass County Courthouse in Book 19 of Water Rights records on Page 279. In 1908 the Glass-Lindsey Land Company incorporated and let contracts for the construction of dams, reservoirs and canals, which said system was to take flood waters from Sweet Grass Creek, impound the water in reservoirs and thence distribute the water for irrigation to settlers in the area who at that time were acquiring land under the Carey Land Act. This system was completed and put into operation in 1911. At the time of construction and for a short period subsequent to that time the Wormser Ditch from Big Timber Creek, then under the control of the Glass-Lindsey Land Company and later the Sweet Grass Canal and Reservoir Company, and the new system were sometimes referred to as the Big Timber Carey Act Project since they supplied water to much of the land in that vicinity acquired under the Act.

In the spring of 1910 the Sweet Grass Canal and Reservoir Company was incorporated for a term of 40 years in the amount of \$40,000 which was divided into 40,000 shares having a par value of \$1.00. A share was designated to entitle the holder to 1½ acre feet of water per acre during each and every irrigating season. Until March of 1945, at which time the water users under the Big Timber Creek canal and irrigation system of the Sweet Grass Canal and Reservoir Company formed a corporation known as the Big Timber Creek Canal Company, the Corporation controlled both the Big Timber Creek canal and irrigation system and Sweet Grass canal and reservoir system. The Big Timber Creek Canal Company purchased and acquired all of the right, title and interest which the Sweet Grass Canal and Reservoir Company had in the Big Timber Creek canal and irrigation system, commonly known as the Wormser Ditch, and water and water rights conveyed therein. The water users under the Big Timber Creek system in turn relinquished all rights in the Sweet Grass Canal and Reservoir Company.

Four canals—intake, upper, connecting and lower canals, and two reservoirs and the necessary appurtenances, were constructed and are now incorporated under the Sweet Grass Canal and Reservoir Company. The intake canal diverts water from Sweet Grass Creek near the south line of the northwest quarter of the northeast quarter of Section 34, Township 4 North, Range 15 East by means of a reinforced concrete headgate having five steel gates which are four feet by six feet in size. The canal, an enlargement and extension of a pre-existing private ditch, traverses generally southeasterly for 1½ miles to a point in the southeast quarter of the southeast quarter of Section 35, Township 4 North, Range 15 East where it discharges into the upper reservoir, or Lake Adam, which has a capacity of 11,000 acre feet. Through an outlet tunnel located on the west side of the upper reservoir in the southwest quarter of the northwest quarter of Section 2, Township 3 North, Range 15 East water is discharged into the upper canal for distribution to lands lying west and southwest of the two reservoirs. The upper canal which is approximately 15½ miles in length was contracted to be enlarged in 1950 so as to carry 2,500 miner's inches. Actually it will convey nearly 10,000 miner's inches. In addition to enlarging the ditch in 1950, several large works were also constructed: Three concrete spillways to discharge surplus water caused by runoff; a metal siphon being 54 inches in diameter and slightly over 200 feet in length across Otter Creek; a metal siphon 48 inches in diameter and 75 feet in length across Wheeler Creek, and a concrete drop which conveys water from the upper to the lower canal. The connecting canal takes water from the upper reservoir and, after conveying it approximately 1¾ miles in a generally southerly direction, discharges it into the lower reservoir, or Lake Walvoord, which has a capacity of 14,000 acre feet. An outlet tunnel through the rock and earth dam on the southwest shore of the lower reservoir near the center of the southeast quarter of Section 15, Township 3 North, Range 15 East discharges water into the lower canal. The lower canal, being

14½ miles in length and having a capacity of approximately 2,500 miner's inches, traverses the general course of the upper canal.

In addition to supplying water to the stockholders, the Corporation supplies Charles Crum an unlimited amount of water from the intake canal in return for a right of way for the canal which traverses his land, and 350 miner's inches to Leo Cremer in accordance with an agreement entered into between the Sweet Grass Canal and Reservoir Company and Leo Cremer.

In the spring of 1950 the Sweet Grass Canal and Reservoir Company was re-incorporated for a term of 40 years in the amount of \$80,000 which was divided into 80,000 shares having a par value of \$1.00. The present indebtedness of the Corporation is \$30,000, all of which was borrowed in 1950 from the FHA for enlarging the upper canal and constructing the necessary apportioned structures. The cost of water per irrigated acre will be \$1.33 until the loan has been repaid. Approximately half of the charges are designated for loan repayment and the other half for operation, maintenance and service.

In 1950 the system supplied a total of 4,252.5 acre feet of water to thirteen stockholders plus a total of approximately 550 miner's inches to two non-stockholders, in accordance to agreements entered into between the Corporation and individuals. In 1950, 2,695 acres were irrigated under the system with 5,334 acres potentially irrigable under the existing facilities, making a maximum irrigable acreage of 8,029 under the existing works of the Sweet Grass Canal and Reservoir Company. It is also contemplated that additional land will be irrigated from this system in the near future.

TEN MILE DITCH COMPANY (Dissolved)

The Ten Mile Ditch Company Ditch diverts water by gravity from Ten Mile Creek in the northeast quarter of the northeast quarter of Section 7, Township 2 North, Range 15 East by means of a brush dam and wood headgate. The ditch traverses generally southwesterly for approximately 4½ miles supplying water to five users for use upon lands located on the west side of Otter Creek in Sections 8, 18 and 19, Township 2 North, Range 15 East, and Section 13, Township 2 North, Range 14 East.

Three appropriations from Ten Mile Creek have been made for lands lying under the present system. On April 6, 1904, Martin J. Abrahams, Peter Borgman and John Kamps appropriated 450 miner's inches from Ten Mile Creek to irrigate lands in Section 18, Township 2 North, Range 15 East. The filing was made April 9, 1904, and is recorded in Book 19, Page 195 of Water Rights records in the Sweet Grass County Courthouse. An appropriation dated December 14, 1909, and filed January 3, 1910, was made by Theodore S. Lavold to irrigate lands situated in Section 13, Township 2 North, Range 14 East. This appropriation is on file in Book 19, Page 364 of Water Rights records in the County Courthouse. Albert Crest and P. J. Magelssen appropriated, December 13, 1909, and filed January 3, 1910, on 500 miner's inches of water from Ten Mile Creek to irrigate lands in the west half of Section 19, Township 2 North, Range 15 East. This filing is recorded in Book 19, Page 365, of Water Rights records in the County Courthouse.

On November 2, 1904, Articles of Incorporation of The Ten Mile Ditch Company were filed. The corporation was to exist for twenty years, and has not been renewed since the expiration of its charter in 1924. The capital stock was set at \$2,500 which was divided into 100 shares with a par value of \$25. The number of shares issued was 23.

One of the purposes of the corporation was to appropriate water from Big Timber Creek and convey it by ditches from the southeast quarter of Section 6, Township 2 North, Range 14

East northeasterly to Ten Mile Creek, thence down Ten Mile Creek to Otter Creek, thence down Otter Creek to the respective points of diversion of the stockholders of the corporation. On December 10, 1904, the Ten Mile Ditch Company appropriated and filed a notice of appropriation for 1,200 miner's inches of the waters of Big Timber Creek. A ditch, whose point of diversion is on the east bank of the northwest corner of Section 6, Township 2 North, Range 14 East, was constructed and traversed generally southeasterly and easterly to Ten Mile Creek. In Case No. 483, the adjudication of Big Timber Creek and its tributaries, the Ten Mile Ditch Company was awarded the 63rd right in the amount of 880 miner's inches. The ditch was in use only one year when ravaging flood waters took out the headgate. Since that time the system has not been repaired due partially to the reliable water supply in Ten Mile Creek, which is supplemented by waste water and return flow from the Big Timber Creek Canal Company Ditch and the Sweet Grass Canal and Reservoir Company system.

At the present time the Company is operated as a ditch mutual. Each user contributes an equal proportion in money or labor to the expense of maintenance of the ditch. Although the cost of water per irrigated acre is very slight, no estimate could be ventured.

In 1950 there were 360 acres being irrigated under the system with a potential acreage under existing facilities of 62, or a maximum of 422 irrigable acres.

DECREES

Court decrees adjudicating waters are too lengthy and technical to be included herein verbatim. Condensed forms of all of the decrees pertaining to land and water located in Sweet Grass County are included in this report. Where possible, the decreed rights of each case have been tabulated according to the date of priority. The condensed decree consists of the case title, case number, plaintiffs and defendants, persons receiving decreed rights, water source, land description where the right is appurtenant to the land, amount of water decreed, priority dates, case date and presiding judge. The case number has been entered below each decree title in order to facilitate locating the case in the County Courthouse in the event additional information is desired by interested parties. Copies of the decree may also be inspected in the State Engineer's Office.

AMERICAN FORK CREEK (and Tributaries) DECREE

Case No. 374

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

G. R. Wilson, James H. Duffy, C. J. Koehler,	plaintiffs)
vs.)
Thomas McCurry, T. S. Hannon, Joseph Theabeau,)
James Norton & Michael Lyons, Edward Veasey &	) Decree
Charles McDonnell, S. I. Hopkins, Joseph J. Hopkins,)
S. O. Mydland, W. Y. Beecher, William Whalen,)
Rystrum & Albert Hillyer, & Syvert Reisland)
	defendants)

Person to Whom Decreed	Stream	M.I.	Priority
C. Koehler	North Side Ditch	70	5-1-1882
	South Side Ditch	25	5-1-1882
Veasey & McDonnell	McClatchey Ditch from Agnes Cr.	80	5-1-1882
	Ditch No. 3	40	5-1-1882
	Ditch No. 2	100	5-30-1882
	Ditch No. 5	30	6-10-1883
Tooley-Baxter L. & L. Co.		300	5-31-1884
Veasey & McDonnell	Ditch No. 6	60	6-1-1884
Tooley-Baxter L. & L. Co.		300	5-31-1886
J. H. Duffy	South Side Ditch	80	6-1-1886
Veasey & McDonnell	Enlargement of Ditch No. 3	360	6-10-1886
	Ditch No. 7	1000	12-9-1886
S. I. Hopkins	Ditch No. 1—South bank of American Fork	160	5-31-1887
	Ditch No. 2—Springs at head of Agnes Creek	100	5-31-1887
	Ditch No. 3—No. Fk. of American Fork Creek	40	5-31-1887
J. H. Duffy	North Side Ditch	100	6-30-1887
C. Koehler	Agnes Fork Ditch	50	4-10-1888
	Agnes Fork Ditch	150	6-1-1889
	North Side Ditch	50	5-1-1890
J. H. Duffy	South Side Ditch	160	6-30-1891
C. Koehler	Agnes Fork Ditch	100	6-1-1892
	Theabeau Ditch	100	6-1-1893
S. I. Hopkins	Enlargement of Ditch No. 3	280	6-1-1896
Veasey & McDonnell	Ditch No. 4 from Ahern Creek	60	4-25-1897
J. H. Duffy	Enlargement of North Side Ditch	540	5-31-1899
S. B. Raisland	Ditch No. 1	60	5-31-1899
S. I. Hopkins	Ditch No. 4	100	5-31-1899
S. B. Raisland	Ditch No. 2 from Spring Run Cr.	50	7-1-1900
Veasey & McDonnell	Ditch No. 8 from Agnes Cr.	160	6-30-1901
Norton & Lyons		3900	9-5-1902
C. Koehler	Enlargement of Agnes Fork Ditch	180	6-1-1903
	Enlargement of North Side Ditch	180	6-1-1903
Thomas McCurry		120	6-1-1904
S. O. Mydland		300	6-15-1907
S. G. & Katie McGregor (jointly)		480	6-25-1907
American Fork Livestock Co.	Ditch No. 1	480	9-25-1907
	Ditch No. 2	500	12-21-1908

Dated this 21st day of December, 1908.

Sydney Fox, Judge.

Case No. 13-374

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

G. R. Wilson et al plaintiffs)
 vs.) Decree
Thomas McCurry et al defendants)

In the matter of the Application of James I. Langston for a Decree of Water Right of the waters of American Fork, an adjudicated stream.

... It is further Ordered, Adjudged and Decreed that the said James I. Langston has the right, authority and privilege to use and appropriate, subject to all former rights and decrees, a flow of 3 cubic feet per second of time of the waters of American Fork, which water shall be taken from the American Fork at a point upon the north bank at a point 710 feet south 46°40' west of the northwest corner of section 21, 5N-15E all in Sweet Grass County, Montana, according to the plat and report of survey of said ditch, and that the aforesaid James I. Langston shall have the use and benefit of the said flow of 3 cubic feet per second of time of the waters of American Fork for the purpose of irrigating certain lands on the E½E½ of section 10, 5N-14E, all in Sweet Grass County, Montana.

Done in open Court this 18th day of June, 1913.

By the Court

Albert P. Stark, Judge.

Case No. 14-374

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

G. R. Wilson et al plaintiffs)
 vs.)
Thomas McCurry et al defendants)

In the matter of the Application of Jesse E. Langston, for a survey and Decree of Water Right of the waters of American Fork, an adjudicated stream.

... It is Ordered, Adjudged and Decreed that the said Jesse Langston has the right, authority, and privilege to use and to appropriate, subject to all former rights and decrees, a flow of 3 cubic feet per second of time of the waters of American Fork, which water shall be taken from the American Fork at a point upon the north bank, at a point 710 feet South 46°40' west of the northwest corner of section 21, 5N-14E all in Sweet Grass County, Montana, according to the plat and report of survey of said ditch, and that the aforesaid Jesse Langston shall have the use and benefit of the said flow of 3 cubic feet per second of time of the waters of American Fork for the purpose of irrigating the N½NW¼, SENW¼, NWNE¼ of Section 14, 5N-14E.

Albert P. Stark, Judge.

Done in open Court this 18th day of June, 1913.

BIG COULEE CREEK DECREES

Case No. 778

In the Seventh Judicial District of the State of Montana, in and for the County of Yellowstone.

The Montana Cattle Co., a Corp., plaintiff)
 vs.) Decree
B. O. Forsythe, John Rye, James Medley,)
George Simmons, Lincoln Graham defendants)

... It is Ordered, Adjudged and Decreed by the Court that the defendant B. O. Forsythe is entitled to the possession of and is the owner of, the following described land, to-wit: S½SW¼, NESW¼, NWSE¼, sec. 4, 3N-18E and that the same is arid and requires irrigation. That the said B. O. Forsythe is also the owner of and entitled to an undivided 1/2 of a certain water ditch and water right, to-wit: All of the available waters of the South Fork of Big Coulee Creek which

flow therein above the heads of the ditch owned in common by said B. O. Forsythe and John Rye, diverted from said creek in sec. 18 in said township and range, and that the said waters were appropriated by defendant B. O. Forsythe, his grantors and predecessors in interest on the _____ day of April, 1884.

Now therefore, on motion of the counsel for said defendant, B. O. Forsythe, it is ordered, adjudged and decreed that the said defendant B. O. Forsythe is entitled to forever have, hold, possess and enjoy an undivided 1/2 of all the waters of the South Fork of Big Coulee Creek flowing past the heads of the ditch aforesaid, owned in common by him and his co-defendant John Rye.

That the said defendant, John Rye is entitled to the possession of and is the owner of the S $\frac{1}{2}$ NE $\frac{1}{4}$, NWSE $\frac{1}{4}$, NESW $\frac{1}{4}$, sec. 8, 3N-18E in Yellowstone County, Montana, and that the whole thereof is arid and requires irrigation. That the said defendant John Rye is also the owner of and entitled to an undivided 1/2 of a certain water ditch and water right, to-wit: All of the available waters of the South Fork of Big Coulee Creek flowing past the heads of the ditch owned by him and his co-defendant, B. O. Forsythe, diverted from said creek in sec. 18, township and range aforesaid, and that the said waters were appropriated by said defendant, John Rye, his grantors, and predecessors in interest, on the _____ day of April, 1884.

Now therefore on motion of counsel for the defendant John Rye, it is ordered, adjudged and decreed that the said defendant John Rye is entitled to forever have, hold, possess and enjoy an undivided 1/2 of all the available waters of the South Fork of Big Coulee Creek flowing past the heads of the ditch aforesaid.

That the said defendant James Medley is entitled to the possession of the following described land in the County of Yellowstone, State of Montana, to-wit: SW $\frac{1}{4}$, sec. 20, 4N-18E and that the whole thereof is arid and requires artificial irrigation. That the said defendant James Medley is also the owner of and entitled to a certain water ditch and water right to-wit: All of the waters of the North Fork of Big Coulee Creek which flows past the head of the said defendant's (James Medley) ditch which was taken out by him from said Creek, on the 20th day of March, 1885, above the land last described, and on the SW $\frac{1}{4}$ of sec. 20, 4N-18E and that said waters were appropriated by the said defendant James Medley on the 20th day of March, 1885.

Now therefore on motion of counsel for James Medley it is Ordered, Adjudged and Decreed that the said James Medley is entitled to forever have, hold, possess and enjoy all of the waters of the North Fork of Big Coulee Creek flowing past the head of the ditch aforesaid.

Dated this 22nd day of May 1893.

George Milburn, Judge.

Case No. 38

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Stillwater.

In proceedings supplementary
to the case entitled:

The Montana Cattle Company, plaintiff )	)	In the matter of the Application of Ellen
vs. )	)	Forsythe to appropriate water in the South
B. O. Forsythe et al, defendants )	) Decree	Fork of Big Coulee Creek for irrigation
	)	purpose. Big Coulee Creek being an adju-
		dicated stream.

. . . It is Ordered, Adjudged and Decreed that the petitioner Ellen Forsythe is entitled to and shall have by appropriation for her use, possession and enjoyment 3 cubic feet per second of time of the waters of the South Fork of Big Coulee Creek, in Stillwater County (now Sweet Grass), Montana, for irrigation purposes, and she is decreed to be the owner by appropriation of said 3 cubic feet per second of time of the waters of said South Fork of Big Coulee Creek, and that the date of said appropriation is February 27, 1914.

Done in open Court on this 13th day of April 1914.

Albert P. Stark, Judge.

ADJUDICATION OF BIG TIMBER CREEK AND ITS TRIBUTARIES—DECREE

Case No. 483

E. N. Bailey, E. O. Clark, Frank Henry, Alfred Rudd, Briggs-Ellis Co.,)
 R. Langford, Robert Naumayer, Rebecca M. Davis, J. W. Davis,)
 Maria T. Hathaway, Christina Rudd, J. L. Rapstad, Sven J. Mauland,) plaintiffs
 Nils Iverson, A. O. Anderson, A. H. Arneson, Samuel Sanderson,)
 W. J. Hannah, Margaret A. Hannah, Edw. Hauge, P. J. Magelssen,)
 Hannah Rudd, Ten Mile Ditch Co., Fred Webb)

vs.

Nicholas Tintinger, Jacob Urdahl, R. E. Hauge, Bina Hauge, John Gough,)
 N. J. Tintinger, Maria Tintinger, T. M. Grosfield, A. M. Grosfield,)
 Caroline Carnes, Citizens State Bank (of Big Timber), Holland)
 Irrigation Canal Co., Alexander Grant, John T. Mjolsness, G. DeKoning,)
 R. Sinnema, C. Moens, L. Sikkama, B. Plaggemeyer, D. J. Walvoord,) defendants
 L. P. Tintinger, Severen Nelson, G. Haak, Chas. F. Stocker,)
 H. E. Armstrong, Carl Topel, Osmund L. Mosse, Fred A. Tintinger,)
 Marion Nevin, Ivor Nelson, Oleana Iverson, Emil Johnson, Gabriel)
 Urdahl, Securities Co. Ltd., Lisa Sjurson, John B. Morris, Wm. G. Muir,)
 A. Whitney & J. F. Asbury, Sweetgrass Irrigation Co., Glass-Lindsey Land Co.)

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.L.	Date of Priority	Priority
Maria T. Hathaway	SE $\frac{1}{4}$	16	2N	14E	146	1-1-1880	1
	All	21	2N	14E			
	SWSW $\frac{1}{4}$, SESW $\frac{1}{4}$	22	2N	14E			
	All	27	2N	14E			
J. L. Rapstad	All	2	1N	14E	80	3-15-1880	2
	SW $\frac{1}{4}$	4	2N	14E			
	All	5	2N	14E			
	All	9	2N	14E			
T. M. Grosfield (Swamp Cr.)	N $\frac{1}{2}$ SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$	28	2N	14E	200	4-1-1880	3a
A. H. Arneson (Swamp Cr.)	All	1, 3	1N	13E			
	S $\frac{1}{2}$ SW $\frac{1}{4}$, Lot 6, S $\frac{1}{2}$ NW $\frac{1}{4}$,						
	N $\frac{1}{2}$ SE $\frac{1}{4}$, SWNE $\frac{1}{4}$	6	2N	13E	466	4-1-1880	3b
	NESW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$, SESE $\frac{1}{4}$	22	2N	13E			
	Sec. 27, 29, 32, 35	2N	13E				
	Sec. 7, 19, 29, 31, 33	2N	14E				
	N $\frac{1}{2}$, NESE $\frac{1}{4}$, W $\frac{1}{2}$ SW $\frac{1}{4}$, NESW $\frac{1}{4}$	30	2N	14E			
	Sec. 7, 17, 31	3N	13E				
A. M. Grosfield (Swamp Cr.)	All except N $\frac{1}{2}$ N $\frac{1}{2}$	8	2N	13E			
	NE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, NENW $\frac{1}{4}$,						
	S $\frac{1}{2}$ SW $\frac{1}{4}$, SWSE $\frac{1}{4}$	10	2N	13E	334	4-1-1880	3c
	NW $\frac{1}{4}$, SWNE $\frac{1}{4}$, NWSE $\frac{1}{4}$,						

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.	Date of Priority	Priority
	E½SW¼	14	2N	13E			
	N½SE¼, SWNE¼, SENW¼	20	2N	13E			
	NENE¼	22	2N	13E			
	Sec. 3, 5, 9, 11, 13, 15, 17, 23, 24, 25		2N	13E			
	Sec. 21, 27, 29		3N	13E			
	NW¼, N½SW¼, S½NE¼,						
	NENE¼	28	3N	13E			
Robert Naumeyer	N½NW¼, Lots 3, 4	12	1N	14E	50	4-15-1882	4a
E. N. Bailey	All	7	1N	15E	150	4-15-1882	4b
	SWNW¼, E½SW¼, SWSE¼, N½	8	1N	15E			
F. A. Webb	SW¼	8	1N	15E	150	4-15-1882	4c
	All	9	1N	15E			
J. F. Asbury)	SW¼, N½	4	2N	14E			
Henry Whitten)		Sec. 5, 9, 17	2N	14E			
A. Whitney) jointly	W½	29	3N	14E			
D. Webb)		Sec. 31, 32, 33	3N	14E	50	6-15-1883	5
A. M. Grosfield	(See priority 3c)						
(Swamp Cr.)					160	6-15-1884	6
E. O. Clark and							
Frank Henry (jointly)		Sec. 34, 35	2N	14E	100	6-1-1885	7
E. O. Clark and							
Frank Henry (jointly) (See priority 7)					40	6-2-1885	8
A. M. Grosfield	(See priority 3c)						
(Swamp Cr.)					140	6-3-1885	9
Sven J. Mauland	SENW¼, NESW¼, Lots 2, 3, 4	2	1N	14E	100	7-9-1887	10a
J. W. Davis	W½SE¼	2	1N	14E	25	7-9-1887	10b
	36 acres in NWNE¼	11	1N	14E			
W. J. Hannah	SE¼, S½SW¼	18	3N	13E			
(Middle Fork)	All	19	3N	13E	120	7-15-1887	11
	SW¼	20	3N	13E			
	NE¼, E½SE¼	30	3N	13E			
Reuben Langford	Lots 1, 2	12	1N	14E	50	6-15-1888	12
Carrie Sanderson	S½SE¼, E½SW¼, SENW¼,						
	NWSW¼, NWSE¼, SWNE¼	4	3N	13E			
(Amalong Cr.)	E½SW¼, NWSW¼, SENW¼,						
	W½NW¼	10	3N	13E	160	6-15-1888	13a
	NWNE¼, NENW¼	14	3N	13E			
	Sec. 5, 9, 11, 15	3N	13E				

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.L.	Date of Priority	Priority
John Mjolsness (Amalong Cr.)	SE $\frac{1}{4}$, SENW $\frac{1}{4}$, NESW $\frac{1}{4}$, Lots 3, 4	6	3N	13E		50	6-16-1888 13b
J. F. Asbury, et al	(See priority 5)					50	7-1-1888 14
Tintinger Bros. (North Fork)	All	1	2N	13E			
	E $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$	16	3N	13E	50	7-15-1888	15
	N $\frac{1}{2}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$, SWNW $\frac{1}{4}$,						
	NWSW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$	34	3N	13E			
	All	35	3N	13E			
	W $\frac{1}{2}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$	36	3N	13E			
A. M. Grosfield (South Fork)	(See priority 3c)				160	6-15-1889	16
A. H. Arneson (Swamp Cr.)	(See priority 3b)				100	9-14-1889	17
A. M. Grosfield (South Fork)	(See priority 3c)				20	9-15-1889	18
A. M. Grosfield (Swamp Cr.)	(See priority 3c)				50	4-21-1890	19a
A. M. Grosfield (Swamp Cr.)	(See priority 3c)				40	4-21-1890	19b
O. L. Mosse (Swamp Cr.)	E $\frac{1}{2}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, SESE $\frac{1}{4}$	8	2N	13E	40	4-21-1890	19c
A. H. Arneson (Swamp Cr.)	(See priority 3b)				60	4-21-1890	19d
A. H. Arneson (Swamp Cr.)	(See priority 3b)				60	6-1-1891	20
Nils Iverson	E $\frac{1}{2}$ SE $\frac{1}{4}$, NWSE $\frac{1}{4}$, SWNE $\frac{1}{4}$, NW $\frac{1}{4}$	6	2N	14E	50	7- -1891	21
Christina Rudd	All	1	1N	14E	276	3-25-1892	22
J. F. Asbury et al (North Fork)	(See priority 5)				300	12-20-1892	23a
Glass Lindsey Land Co. (North Fork)					1000	12-20-1892	23b
					(See modifying decree)		
Rebecca M. Davis	E $\frac{1}{2}$ (except 36 acres)	11	1N	14E	180	6-1-1893	24a
J. W. Davis	(See priority 10b)				25	6-1-1893	24b

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.	Date of Priority	Priority
Robert Naumayer	(See priority 4a)				50	6-1-1893	24c
A. H. Arneson (Swamp Cr.)	(See priority 3b)				40	7-1-1893	25
Carrie Sanderson (Hailstone Cr.)	(See priority 13a)				40	7-2-1893	26
John Mjolsness (So. Fk. Amalong Cr.)	(See priority 13b)				20	7-3-1893	27
Ed Hauge	N½NW¼, SWNW¼, NWSW¼	22	2N	14E	60	7-1-1894	28
Carrie Sanderson (Amalong Cr.)	(See priority 13a)				140	7-2-1894	29
John Gough	N½NE¼, SENE¼, NESE¼	34	2N	14E	80	6-1-1895	30
Marie T. Hathaway	(See priority 1)				30	6-1-1895	31
J. F. Asbury et al (North Fork)	(See priority 5)				130	6-10-1895	32
J. F. Asbury et al	(See priority 5)				20	6-11-1895	33
A. M. Grosfield (Swamp Cr.)	(See priority 3c)				60	6-12-1895	34
W. J. Hannah (South Fork)	(See priority 11)				250	5-23-1896	35a
Tintinger Bros. (South Fork)	(See priority 15)				250	5-23-1896	35b
Nils Iverson (South Fork)	(See priority 21)				50	5-23-1896	35c
A. M. Grosfield (South Fork)	(See priority 3c)				22	5-23-1896	35d
Clark and Henry	(See priority 7)				80	6-30-1897	36
Christina Rudd	(See priority 22)				180	7-1-1897	37
Margaret A. Hannah (Amalong Cr.)	N½N½ SE¼, N½SW¼ NW¼ NE¼, E½SE¼, SWSE¼, NENW¼ All	4 8 20 32 33	2N 3N 3N 3N 3N	13E 13E 13E 13E 13E	40	8-1-1897	38

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.L.	Date of Priority	Priority
Alfred Rudd	Lots 2, 3, 4, 5, 6, 7	6	1N	15E	170	9-1-1897	39
A. M. Grosfield (Swamp Cr.)	(See priority 3c)				50	9-15-1897	40
W. J. Hannah (Devil Cr.)	(See priority 11)				200	6-1-1898	41
Tintinger Bros. (Devil Cr.)	(See priority 15)				40	6-1-1898	42
Alexander Grant (Hailstone Cr.)	SE $\frac{1}{4}$	10	3N	13E	70	7- -1898	43
J. L. Rapstad	(See priority 2)				40	1-1-1899	44
Maria Hathaway	(See priority 1)				56	6-1-1899	45
Margaret Hannah	(See priority 38)				40	6-1-1900	46
Rebecca M. Davis	(See priority 24a)				30	7-1-1900	47
J. L. Rapstad, Gdn.	All	36	2N	14E	500	5-1-1901	48
	All	31	2N	15E			
Maria T. Hathaway	(See priority 1)				70	7-1-1901	49
Briggs-Ellis Co.	N $\frac{1}{2}$ SE $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$	10	1N	14E	550	3-14-1902	50
	W $\frac{1}{2}$	11	1N	14E			
	Lots 1, 2, 3, 4	15	1N	14E			
Maria T. Hathaway (McGerry Cr.)	(See priority 1)				20	6-30-1902	51
Clark and Henry (Swamp Cr.)	(See priority 7)				150	9-1-1902	52
Tintinger Bros. (South Fork)	(See priority 15)				450	9-15-1902	53
A. M. Grosfield (South Fork)	(See priority 3c)				278	1-1-1903	54
Albert Crest	All	11	3N	14E	100	5-3-1903	55a
	N $\frac{1}{2}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$	14	3N	14E			
Charles F. Stocker and H. E. Armstrong (jointly)	All	1, 3	3N	14E)	300	5-3-1903	55b
	N $\frac{1}{2}$ SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{4}$,)			
	S $\frac{1}{2}$ SE $\frac{1}{4}$	2	3N	14E)			

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.	Date of Priority	Priority
Charles F. Stocker	Lots 3, 4, SENW $\frac{1}{4}$, SWNE $\frac{1}{4}$, N $\frac{1}{2}$ NE $\frac{1}{4}$, SENE $\frac{1}{4}$)		
	NE $\frac{1}{4}$	6	3N	14E)			
	All	10	3N	14E)			
	NWNW $\frac{1}{4}$	33	4N	14E)			
A. H. Arneson (Dry Cr.)		34	4N	14E)			
	(See priority 3b)					47	9-5-1903 56a
O. L. Mosse (Dry Cr.)	(See priority 19c)					145	9-5-1903 56b
A. M. Grosfield (Dry Cr.)	(See priority 3c)					140	9-5-1903 56c
A. M. Grosfield (Swamp Cr.)	(See priority 3c)					80	9-9-1903 57
E. N. Bailey	(See priority 4b)					200	3-4-1904 58
W. J. Hannah (Middle Fork)	(See priority 11)					100	5- -1904 59
Jacob Urdahl	NE $\frac{1}{4}$	16	2N	14E	60	6-15-1904	60a
Maria T. Hathaway	(See priority 1)					128	6-15-1904 60b
Maria T. Hathaway (Swamp Cr.)	(See priority 1)					150	8-2-1904 61
Bina Hauge (South Fork)	S $\frac{1}{2}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$	12	2N	13E		100	11-22-1904 62a
W. J. Hannah (South Fork)	(See priority 11)					120	11-22-1904 62b
Ten Mile Ditch						880	11-25-1904 63
A. M. Grosfield (Swamp Cr.)	(See priority 3c)					20	12-1-1904 64
W. J. Hannah (South Fork)	(See priority 11)					60	5- -1905 65
Margaret A. Hannah (South Fork)	(See priority 38)					200	6-1-1905 66
John Mjolsness (Amalong Cr.)	(See priority 13b)					50	5-1-1906 67

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.	Date of Priority	Priority
Carrie Sanderson (Amalong Cr.)	(See priority 13a)				240	6-1-1906	68
Sweetgrass Irrigation Co.					12,000	7-25-1906	69
A. M. Grosfield (Swamp Cr.)	(See priority 3c)				220	8-1-1906	70
Margaret A. Hannah (South Fork)	(See priority 38)				250	6-1-1907	71
J. W. Davis	(See priority 10b)				20	6-15-1907	72
Bina Hauge (Rock Cr.)	(See priority 62a)				150	1-17-1908	73
Margaret A. Hannah (Devil Cr.)	(See priority 38)				120	6-25-1908	74
A. O. Anderson (South Fork)	N½NW¼, N½NE¼, S½NE¼, W½SE¼	8	2N	14E	160	8-1-1908	75
A. M. Grosfield (South Fork)	(See priority 3c)				140	6- -1909	76
Hannah Rudd (Swamp Cr.)	S½NE¼, SENW¼, Lots 3, 4	6	1N	14E	100	7-20-1909	77
Louis Beley (No. Fk. Swamp Cr.)	320 Acres in	4	1N	14E	280	5-28-1910	78

Done in open Court this 1st day of April 1911.

Sidney Sanner, Judge.

SUPPLEMENTARY DECREES

Case No. 26-483

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

In the matter of the Application of) Proceedings supplemental to the case entitled
 Philip W. Hanson to appropriate water) E. N. Bailey et al
 of Amalong Creek, a tributary of Big) vs.
 Timber Creek, an adjudicated stream) Nicholas Tintinger et al

. . . It is Ordered, Adjudged and Decreed that the petitioner Philip W. Hanson is entitled to and shall have by prior appropriation, appropriated on the 6th day of April 1914 for his use, possession and enjoyment 1½ cubic feet per second of time of the waters of Amalong Creek, a tributary of Big Timber Creek, in the County of Sweet Grass, State of Montana, for irrigation.

purposes, and he is decreed to be the appropriator of 1½ cubic feet per second of time of the waters of said Amalong Creek and that said appropriation was made on the 6th day of April 1914.

Done in open Court this 16th day of June, 1914.

Albert P. Stark, Judge.

Case No. 31-483

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

In the matter of the Application of Nels) Proceedings supplemental to the case entitled
Helleren. To appropriate a water right) E. N. Bailey et al plaintiffs
in Amalong Creek, a tributary of Big) vs.
Timber Creek, an adjudicated stream) Nicholas Tintinger

. . . It is Ordered, Adjudged and Decreed, that the petitioner Nels Helleren is the appropriator of 3½ cubic feet per second of water of Amalong Creek aforesaid appropriated May 27, 1914 for the purpose of irrigation, for the irrigation of his lands aforesaid (SWNE¼, W½SE¼, SESE¼, Sec. 32, 4N-13E), and that he have, use and enjoy said water right, subject to all legal prior appropriations of the waters of said stream.

Done in open Court this 8th day of September 1914.

Albert P. Stark, Judge.

Case No. 36-483

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

E. N. Bailey et al plaintiffs)
 vs.) Decree Modifying Original Decree
Nicholas Tintinger et al defendants)

. . . It is therefore Ordered, Adjudged and decreed that the original decree heretofore given made and entered in said cause be and the same is hereby modified to the effect that the Glass-Lindsey Land Company are hereby adjudged to be the owners of and entitled to the beneficial use of 1770 inches or a flow of 44¼ cubic feet per second of time of the waters of Big Timber Creek and its tributaries as of the date of the original appropriation thereof as heretofore fixed in said original decree, to-wit: the 20th day of December 1892.

Done in open Court this 10th day of August 1915.

J. M. Clements, Judge.

Case No. 42-483

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

E. N. Bailey et al, plaintiffs)
 vs.) Proceedings Supplementary
Nicholas Tintinger et al, defendants)

In the matter of the Application of Ole Langhus and Guri Langhus for a decreed water right in the waters of the South Fork of Big Timber Creek, an adjudicated stream in the County of Sweet Grass, State of Montana.

. . . It is Ordered, Adjudged and Decreed, that the petitioners Ole J. Langhus and Guri Langhus are the appropriators of 7½ cubic feet per second of time of the waters of the said South Fork of Big Timber Creek as aforesaid as of date July 1, 1917 for the purpose of irrigation for the irrigation of their lands as aforesaid (NW¼, W½SW¼, SESW¼, SE¼, Sec. 22, 3N-13E), and that they have, use and enjoy said water right subject to all legal prior appropriations of the waters of said stream.

Done in open Court this 19th day of December 1917.

Albert P. Stark, Judge.

BRIDGER CREEK DECREE

Case No. 86

In the District Court of the Sixth Judicial District in and for Sweet Grass County, Montana.

Mary Kent	plaintiff)
vs.)
J. H. Whiting, A. N. Thompson,	) Decree
Fred Thompson, Bert Wadsworth,)
John Knox and J. N. Mills,	defendants)

Person to Whom Decreed	M.I.	Priority
Mary Kent	220	1879 & 1880
J. H. Whiting	75	2-15-1893
A. N. Thompson	60	2-15-1893
J. N. Mills	50	7- -1895
John Knox	50	3- -1896

Dated this 18th day of March 1898.

Frank Henry, Judge.

LOWER OR EAST DEER CREEK (and Tributaries) DECREES

Case No. 315

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

John Cosgriff, John Frost, Thomas Cosgriff)
Jacob Hohenberger, S. R. Dillon & J. G. Hooper, plaintiffs)
vs.)
T. M. Grosfield, Peter Hughes, Tennis Rapstad,	) Decree
Ole Birkeland, L. S. Davis, C. S. Unzem,)
Tonette Ketosh and Louis Walters,	defendants)

Person to Whom Decreed	M.I.	Priority
John Frost	50	4-1-1891
John Cosgriff	50	4-1-1891
Thomas Cosgriff	80	4-1-1891
Louis Walters and Tonette Ketosh, jointly	240	9-1-1892
Peter Hughes	40	10-10-1892
Jacob Hohenberger	40	6-15-1893
Ole Birkeland	50	6-15-1893
S. R. Dillon	25	7-2-1893
T. M. Grosfield (Spring Cr.)	40	10-17-1893
J. G. Hooper	30	3-1-1894
John Cosgriff	58	5-1-1895
John Frost	50	5-1-1895
J. G. Hooper	40	6-1-1895
Ole Birkeland	55	4-1-1896
Peter Hughes	25	5-1-1896
Jacob Hohenberger	32	7-1-1896
S. R. Dillon	62	5-1-1897
T. M. Grosfield	60	5-1-1899
Ole Birkeland	75	7-5-1901

Done in open Court this 28th day of March 1905.

Frank Henry, Judge.

Case No. 5

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

In the matter of the Application of Lewis S. Davis)
for right to appropriate waters of the Lower Deer Creek,) Decree
for right to use said waters having been adjudicated.)

. . . It is Ordered, Adjudged and Decreed that the said Lewis S. Davis, be and he is hereby decreed to be the owner and entitled to the use of 116 inches or its equivalent of 2.9 cubic feet per second of time of the waters of Lower Deer Creek as of date August 26, 1908 and that he, the said Lewis S. Davis, his heirs, executors, administrators, and assigns is subject to, bound by, and in all things shall comply with the decree of this Court made and entered on the 28th day of March, 1905, in that certain cause wherein Thomas Cosgriff et al were plaintiffs and T. M. Grosfield et al were defendants, wherein the rights to the use of the waters of Lower Deer Creek were adjudicatd.

Done in open Court this 8th day of August 1910.

Frank Henry, Judge.

DEVIL CREEK DECREE

Case No. 435

In the District Court of the Sixth Judicial District of the State of Montana in and for the County of Park.

N. J. Tintinger, plaintiff)
vs.) Decree
W. J. Hannah & Edward Roberts, defendants)

... It is by the Court Ordered, Adjudged and Decreed, that the plaintiff N. J. Tintinger, is the owner and entitled to the possession of E $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$, sec. 26-3N-13E containing 200 acres more or less, and that the said plaintiff is the owner of and entitled to the use and enjoyment of 40 inches, or a flow equivalent to one cubic foot per second of time, of the waters of Devil Creek, appropriated June 1st, 1898, for the necessary irrigation of the land above described.

That the defendant W. J. Hannah is the owner of and entitled to the possession of SE $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{4}$, sec. 18; all of sec. 19; SW $\frac{1}{4}$ sec. 20, 3N-13E and that the said defendant, W. J. Hannah is the owner of and entitled to the use and enjoyment of 200 inches or a flow equivalent to 5 cubic feet per second of time to the waters of Devil Creek, appropriated June 1st, 1898 and it appearing to the Court that the waters of said Devil creek do not reach the headgate of the plaintiff, N. J. Tintinger if allowed to flow in said creek during the irrigation season, said W. J. Hannah is hereby decreed the use of all the water in said creek at his headgate not exceeding 5 cubic feet.

That the defendant, Edward Roberts is the owner of and entitled to the possession of NE $\frac{1}{4}$ of sec. 20, 3N-13E and that said defendant Edward Roberts is also the owner of and entitled to the use and enjoyment of 120 inches or a flow equivalent to 3 cubic feet per second of time of the waters of Devil Creek appropriated June 25, 1908.

All of said lands above described is in the County of Sweet Grass, State of Montana, and all of said lands are adjudged to be arid and require artificial irrigation in order to produce a crop of any value whatever.

Done in open Court this 27th day of Sept. 1909.

Frank Henry, Judge.

DECREES OF DUCK CREEK AND TRIBUTARIES

Case No. 236

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Meagher.

. . . Now on this 25th day of June, 1903, on motions of the respective counsel of the parties hereto, it is ordered, adjudged and decreed by the court, as follows:

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.	Date of Priority
Wm. McKenzie and A. M. Clark (jointly)	SENE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, SESE $\frac{1}{4}$ N $\frac{1}{2}$ NW $\frac{1}{4}$, Lots 1, 2, 3 All No. of Yellowstone R.	12	1S	12E		
(Gage Ditch) (Ennis Ditch)		8	1S	13E	125	7-2-81
		7	1S	13E	200	10-9-83
Wm. & Hannah Dallman	N $\frac{1}{2}$ NE $\frac{1}{4}$, Lots 1, 2, 3, 4 W $\frac{1}{2}$ SW $\frac{1}{4}$, SESW $\frac{1}{4}$, SWSE $\frac{1}{4}$ N $\frac{1}{2}$ NW $\frac{1}{4}$, NWNE $\frac{1}{4}$, Lots 1, 2, 3, 4	14	1S	12E		
		12	1S	12E		
		13	1S	12E	125	4-21-84
Briggs-Ellis Cattle Co.	All	35	1N	12E	50	5-1-84
(East Fork)					64	6-1-86
					64	6-1-88
Mrs. Romans, Adm. of Roman Est.	All	1	1N	12E	50	5-1-84
(East Fork)					64	6-1-86
					54	6-1-88
J. N. Kelly	(East Fork) E $\frac{1}{2}$ NW $\frac{1}{4}$	14	1N	12E	150	3-25-87
Frank B. Clark	All W $\frac{1}{2}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ SW $\frac{1}{4}$	9	1N	12E	100	10-1-89
(Alkali Cr.)		16	1N	12E	100	6-10-94
Carlos Meigs	NW $\frac{1}{4}$	34	1N	12E	85	8-1-90
Grant Bishir and C. H. Crane (jointly)	All	2	1N	11E	300	9-15-91
					280	6-1-96
Geo. W. Statham	N $\frac{1}{2}$ NW $\frac{1}{4}$, SWNW $\frac{1}{4}$, NWSW $\frac{1}{4}$	28	1N	12E	55	5-1-95
Francis Bros. and L. E. Montgomery (jointly)	All E $\frac{1}{2}$	26	2N	10E		
		35	2N	10E	1000	6-10-95

Done in open court this 25th day of June, 1903.

Frank Henry, Judge.

Case No. 2-236

In the matter of the Application of)
Harvey Coit and Eleanor Coit to) Order Allowing Appropriation
appropriate waters of Bailey Creek,)
a tributary of Duck Creek)

. . . It is ordered that the application of Harvey Coit and Eleanor Coit to appropriate 10 cubic feet per second of time of the waters of Bailey Creek, a tributary of Duck Creek, to be diverted from the left bank of said Bailey Creek on the NE $\frac{1}{4}$ of Sec. (34?), 2N-12E in Sweet Grass County, Montana for the irrigation of Sec. 2, 1N-12E, the appropriation to date March 15, 1910 be and the

same is hereby allowed; and they are entitled to use and enjoy said water in equal shares between them.

Done in open court this 8th day of August, 1910.

Frank Henry, Judge.

Case No. 3-236

In the District Court of the Sixth Judicial District of Montana, in and for the County of Sweet Grass.

In the matter of the Application)
of A. M. Clark and William McKenzie) Orders Allowing Appropriation
to appropriate waters of Duck Creek)

. . . It is ordered that the application of A. M. Clark and William McKenzie to appropriate 12½ cubic feet per second of time of the waters of Duck Creek to be diverted from two points of said Duck Creek, one of which points is on the west bank thereof 643 ft. south 49° 30 min. west from the NE corner of Sec. 12, 1S-12E and the other point of diversion is at a point 669 ft. north 55° 25 min. west from the NE corner of Sec. 12, 1S-12E, for the irrigation of lands owned by said appropriators in Sec. 12, 1S-12E. and Sec. 7 and 8, 1S-13E in said county in appropriation to date 28th day of April, 1910 be, and the same is hereby allowed, and they are entitled to use and enjoy said water in equal shares between them.

Done in open court this 8th day of August, 1910.

Frank Henry, Judge.

Case No. 6-236

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

Grant Bisher, Minnie L. Bisher, R. L. Jarrett,)
Harvey Coit, Eleanor Coit, A. B. Coit,)
B. A. Matterson, Briggs-Ellis Co., Ltd.,)
Charles H. Shook, Chas. H. Shook, Adm. of) Decree
Estate of Roy Shook, deceased, for a Decree)
settling the water rights on Duck Creek,)
Sweet Grass County, Montana.)

. . . Each of the parties to this action is entitled to the use of the waters of Duck Creek and its tributaries, subject and inferior to prior decrees of this Court relating thereto.

DECREE

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.	Date of Priority
Briggs-Ellis Co. Ltd.	(Lowell Cr.)	25	1N	11E	100	7-1-1903
	(Hole-in-Rock Cr.)				100	7-1-1910
Charles H. Shook	(Henry Cr.)	32	2N	12E	80	7-1-1903
B. A. Matterson	S½SW¼	26	1N	12E	30	7-1-1903
R. L. Jarrett	Lots 6, 7	6	1S	11E	60	5-1-1905
Minnie L. Bisher	SE¼	34	2N	11E	160	6-30-1905

Person to Whom Decreed		Land Description	Sec.	Twp.	Rge.	M.I.	Date of Priority
Est. of Roy Shook	(Henry Cr.)	W½NW¼, W½SW¼	28	2N	12E	80	10-1-1905
Harvey & Eleanor Coit	(Henry Cr.)		2	1N	12E	200	5-1-1910
Grant Bisher	(Cayuse Cr.)	N½	1	1N	11E	80	5-10-1910
A. B. Coit	(Wilcox Cr.)	S½	26	1N	11E	200	5-15-1910

Done in open Court this 27th day of February, 1911.

Frank Henry, Judge

Case No. 9-236

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

In the matter of the Application of)
Delphine Prevost for the right to)
appropriate waters of Duck Creek, the)
right to the use of said waters having)
been adjudicated)

. . . Wherefore it is ordered, adjudged and decreed that the said Delphine Prevost be and she is hereby decreed to be the owner and entitled to the use of 250 inches per second of time of the waters of Duck Creek as of the date March 17, 1910 and that she, the said Delphine Prevost, her heirs, executors, administrators and assigns are subject to, bound by and in all things shall comply with the decree of this Court, made entered on the 25th day of June, 1903 in that certain cause wherein Wm. McKenzie et al were plaintiffs and Charles Francis et al were defendants wherein the rights to the use of the waters of Duck Creek were adjudicated.

Done in open Court this 28th day of December, 1912.

James F. O'Connor, Judge.

Case No. 10-236

In the matter of the Application of Annette P. Coit, for Decree of Water Right of the Waters of Duck Creek, (An adjudicated stream).

. . . It is ordered, adjudged and decreed that the appropriator, Annette P. Coit, is the owner and entitled to the use, possession and enjoyment under and by virtue of a filing thereon under the Desert Land Acts of the United States, of the tract of land claimed by her in her Petition on Application, in this matter, to-wit:

The S½ of Sec. 24, 1N-11E, Park County, Montana and that the said petitioner is in possession of and entitled to possession under and by virtue of leases thereof, the N½ of Sec. 24, the E½ of Sec. 23 in Township 1N, Range 11E in Park County, Montana, and that the whole of said land is arid and requires artificial irrigation in order to produce crops.

And it further appearing that the said applicant requires for the necessary irrigation of the said lands, 600 inches, or a flow equivalent to 15 cubic feet per second of time, statutory measurement, of the waters of Duck Creek, (an adjudicated stream) in Park County, Montana.

It is further ordered, adjudged and decreed that the said applicant, Annette P. Coit is the owner of the said amount of water as was found to be necessary for the irrigation of the said lands set forth and described hereinabove, and that she is entitled to the use and enjoyment thereof as of date the 30th day of November, 1912, to the exclusion of all other parties to this action.

That the said applicant on the 30th day of November, 1912 diverted and appropriated from Duck Creek (an adjudicated stream) in Park County, Montana, 600 inches or a flow equivalent to 15 cubic feet per second of time, of the waters of Duck Creek, and that she is now the owner and holder of the said amount of water, appropriated as of the date aforesaid.

And it is further ordered, adjudged and decreed that the said Annette P. Coit be, and she is hereby enjoined and restrained from in any wise wasting the waters of the said Duck Creek and from diverting at any time more water than is necessary for the use to which it is applied, or to the irrigation of said lands at the time of diverting the same, and she is hereby enjoined and restrained from in any wise interfering with any of the ditches, dams, flumes or headgates of any of the other parties to this action, or from using any of the waters of the said Duck Creek or the tributaries thereof which other parties are entitled to by right of prior appropriation as found in the Decree heretofore made, entered and given in the above entitled cause as of date 27th of February, 1911.

Dated February 24th, 1913.

Albert P. Stark, Judge.

Case No. 11-236

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

William McKenzie et al plaintiffs

vs.

Charles Francis et al defendants

In the matter of the application of William Rea
for a survey and for a Decree of water right of
the waters of Duck Creek, an adjudicated stream.

. . . It is ordered, adjudged and decreed that the applicant herein William Rea is the owner of and entitled to the use and possession of the tracts of land claimed by him in his application in this matter, and that the whole of said land required irrigation, which said lands are:

W½W½, W½NE¼, SENW¼, SESW¼, Sec. 12, 1N-10E.

That for the purpose of irrigating his said land the said William Rea did on the 30th day of December, 1912, appropriate 300 inches (or a flow equivalent to 7½ cubic feet per second of time) of the waters of Duck Creek, an adjudicated stream and a tributary of Yellowstone River, and that since said date has used due diligence in completing his irrigation works, and that he completed the same on the first day of February 1913, and that the said William Rea is entitled to and is now the owner and holder of said amount of water of the waters of Duck Creek, appropriated as of the date of the 30th day of December, 1912.

It is further ordered, adjudged and decreed, that the said parties to this application be, and they hereby are, enjoined and restrained from in any wise wasting the waters of Duck Creek,

or diverting at any time more water than is necessary for the use to which it is to be applied or the irrigation of his said lands at the time of diverting the same, and he is enjoined and restrained from in any wise interfering with any of the ditches, flumes, or headgates of any of the other parties to this action or from using the waters of Duck Creek, or its tributaries, which other parties are entitled to by right of prior appropriation as found by the decrees heretobefore made, entered and given in the within entitled action.

Dated this 11th day of March, 1913.

By the Court.

Albert P. Stark, Judge.

Case No. 19-236

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

William McKenzie et al plaintiffs
vs.
Charles Francis et al defendants

In the matter of the application of
Olive L. Clark, for a Decree of Water Right
of the waters of Duck Creek (an adjudicated stream).

. . . It is therefore ordered, adjudged and decreed that the said Olive L. Clark is the owner of and entitled to the use of 3½ cubic feet (140 inches) per second of time of the waters of the east fork of Duck Creek as of the date of August 5, 1909.

Done in open Court this 15th day of Sept., 1913.

Albert P. Stark, Judge.

Case No. 28-236

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

William McKenzie et al plaintiffs)
vs.) Decree
Charles Francis et al defendants)

. . . It is ordered, adjudged and decreed that for the irrigation of the above described land (N½N½, SWNW¼, Sec. 10, 1N-11E), Estelle Prevost is the owner of and entitled to the use and enjoyment of 160 miners inches, or a flow equivalent to 4 cubic feet per second of time of the waters of Antelope Butte Creek, North Antelope Butte Creek and East Antelope Butte Creek, tributaries of Duck Creek, an adjudicated stream, as follows:

Eighty (80) miner's inches or a flow equivalent to 2 cubic feet per second of time of the

waters of Antelope Butte Creek appropriated May 14, 1914. Forty (40) miners inches or a flow equivalent to 1 cubic foot per second of time of the waters of North Antelope Creek, appropriated May 14, 1914, and 40 miners inches or a flow equivalent to one cubic foot per second of time of the waters of East Antelope Butte Creek appropriated May 14, 1914.

Done in open Court this 8th day of September A. D. 1914.

Albert P. Stark, Judge.

Case No. 34-236

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

In the matter of the application of) In proceedings supplementary to
May M. King and Minnie V. Forsythe,) the case entitled
To appropriate water rights from the) Wm. McKenzie et al plaintiffs
waters of Saw Mill Creek, an) vs.
adjudicated stream) Chas. Francis et al defendants

. . . It is ordered, adjudged and decreed that May M. King is the appropriator of 2½ cubic feet per second of time, and Minnie V. Forsythe is the appropriator of 2½ cubic feet per second of time, of the waters of Saw Mill Creek, appropriated on the 6th day of July A.D. 1912 for irrigation purposes on the lands aforesaid (W½NW¼, SENW¼, NWSE¼, SW¼, Sec. 32, 2N-13E, Lots 1, 2, 3, 4, and 5, SENW¼, S½NE¼, Sec. 6, 1N-13E), and that they have, use and enjoy the amounts, to-wit: 2½ cubic feet per second for May M. King and 2½ cubic feet for Minnie V. Forsythe, of the waters of said stream, subject to all prior legal appropriations of waters of said stream.

Done in open Court this 10th day of November, 1914.

Albert P. Stark, Judge.

Case No. 37-236

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

William McKenzie et al plaintiffs)
vs.)
Charles Francis et al defendants)
In the matter of Christopher Boe for a Survey and Decree) Decree
of Water Right of the Waters of East Duck Creek, a tributary)
of Duck Creek, an adjudicated stream)

. . . It is further ordered, adjudged and decreed that, the said applicant, Christopher Boe, is the owner of the said amount of water as was found to be necessary for the irrigation of the said lands set forth and described herein, (The South half of the Southeast quarter, the Northwest quarter of the Southeast quarter and the Northeast quarter of the Southwest quarter of Section 10, Township 1 North, Range 12 East, M.P.M.) and that he is entitled to the use and enjoyment thereof, as of date the 14th day of August, 1915, to the exclusion of all other parties to this action;

That the said applicant on the 14th day of August, 1915, diverted and appropriated from said East Duck Creek, one hundred and fifty (150) miner's inches or a flow equivalent to three and three-fourths (3¾) cubic feet per second of time of the waters of said East Duck Creek, and that he is now the holder and owner of the said amount of water, . . .

Dated this 6th day of December, A. D., 1915.

Albert P. Stark
Judge of the District Court

Case No. 40-236

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

William McKenzie et al	plaintiffs)
vs.)
Charles Francis et al	defendants)
In the matter of application of Florence E. Davis for a		) Decree
Decree of Water Right out of East Duck Creek, a tributary)	
of Duck Creek, an adjudicated stream.)

. . . It is ordered, adjudged and decreed, that the said Florence E. Davis is the owner of and entitled to the use, possession and control of 210 miner's inches, or a flow equivalent to 5.25 cubic feet per second of time of the waters of East Duck Creek, a tributary of Duck Creek, an adjudicated stream, to be diverted from the South bank of said creek in the Northeast corner of Section 30 in Township 2 North of Range 12 East of the Montana Meridian in Montana, in Sweet Grass County, Montana. Said appropriation to bear date as of May 28, 1915.

The water above appropriated is to be used for the irrigation and reclamation of the following described real estate, situated in the County of Sweet Grass and State of Montana, and now held and claimed by the said Florence E. Davis as a desert claim to-wit; Lots 1, 2, 3 and 4, Southwest quarter of the Northeast quarter, North half of the Southwest quarter, Northwest quarter of the Southeast quarter, Section 32, Township 2 North, Range 12 East, M.P.M.

Done in open Court this 10th day of January, 1917.

Albert P. Stark
Judge of the District Court

ELK CREEK DECREE

Case No. 701

In the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

Horace B. Yerkes,	plaintiff)
vs.		) Decree upon Stipulation
Irving Woolsey,	defendant)

. . . It is Ordered, Adjudged and Decreed that the plaintiff is entitled as against the defendant to divert from Elk Creek, through their joint ditch mentioned in the complaint in this action,

a sufficient quantity of water to carry down to the lowest point on said ditch where the defendant takes water therefrom to irrigate his land, E $\frac{1}{2}$ NE $\frac{1}{4}$, NWNE $\frac{1}{4}$, Sec. 10, and SESE $\frac{1}{4}$ Sec. 3, 3S-13E, 70 inches thereof, or a flow equivalent to 1 $\frac{3}{4}$ cubic feet per second of time, statutory measurement; the defendant, Irving Woolsey, is entitled to the use of said waters of Elk Creek to irrigate his land in S $\frac{1}{2}$ SW $\frac{1}{4}$ sec. 11, SESE $\frac{1}{4}$ sec. 10, NENE $\frac{1}{4}$ sec. 15, all in 3S-13E.

. . . the right of the plaintiff to use the said water to the extent of 70 inches is prior in time and superior to that of the defendant.

Signed and filed this 16th day of June 1914.

Albert P. Stark, Judge.

FISH CREEK DECREE

Case No. 330

In the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

Blanche W. Martin, plaintiff)
vs.) Decree
Julia McClatchey, Julia McClatchey, Adm. et al, defendants)

Person to Whom Decreed	M.I.	Priority
Jas. H. Duffy	160	5-15-1884
John Farrington (E. Fork)	240	6-1-1886
John Harper	50	7-1-1886
John Harper	110	6-21-1887
Blanche W. Martin	110	6-1-1890
Julia McClatchey, Adm. of Robt. McClatchey est.	85	6-1-1892
Julia McClatchey	30	6-1-1892
John Farrington	80	6- -1896
W. S. & John Widdicombe, jointly	200	6-1-1899
John Harper	68	6-2-1902
Jas. H. Duffy	32	5-1-1903

Done in open Court this 6th day of April, 1906.

Frank Henry, Judge.

Case No. 20-330

In the Sixth Judicial District of the State of Montana in and for the county of Sweet Grass.

Blanche W. Martin, plaintiff) Decree for Water Right
vs.) of
Julia McClatchey et al, defendants) Anton A. Strand

. . . It is Ordered, Adjudged and Decreed that Anton A. Strand is the owner and entitled to the use of 6.4 cubic feet per second of time or its equivalent of 256 inches statutory measurement of the waters of the South Fork of Fish Creek and its tributary Potato Creek, and that said Anton A. Strand, his heirs, executors and assigns are subject to, bound by, and in all things

shall comply with the decree of this Court made and entered on the 6th day of April 1906, in that certain action theretofore pending in this Court, wherein Blanche W. Martin was plaintiff and Julia McClatchey et al were defendants, wherein the right to the use of the waters of Fish Creek and its tributaries was adjudicated.

Done in open Court this 30th day of Sept. 1913.

Albert Stark, Judge.

Case No. 30-330

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

Blanche W. Martin, plaintiff)
 vs.) Decree for Water Right
Julia McClatchey et al, defendants)

In the matter of the Application of Roy E. Freeman for a survey and Decree of Water Right of the waters of the southeast Fork of Antelope Creek, a tributary of Fish Creek, an adjudicated stream.

. . . It is Ordered, Adjudged and Decreed that the application of the said Roy E. Freeman to appropriate 2 cubic feet per second of time of the waters of the Southeast Fork of Antelope Creek, a tributary of Fish Creek, an adjudicated stream be, and the same is hereby allowed, and that the said appropriation be as of the date of August 8, 1911; and that he is the owner and entitled to the possession of the ditch by which said appropriation was made.

Done in open Court this 8th day of September 1914.

Albert P. Stark, Judge.

Case No. 39-330

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

Blanche W. Martin, plaintiff)
 vs.) Decree
Julia McClatchey, adm. et al, defendants)

In the matter of Emily Westborough, for a survey and Decree of Water Right of the water of certain springs tributary to Fish Creek, an adjudicated stream.

. . . Now Therefore, by reason of the law and the premises, it is Ordered, Adjudged and Decreed, That the Appropriator Emily Winsborough, is the owner and entitled to the use, possession and enjoyment, under and by virtue of a filing thereon under the Desert Land Acts of the United States of America, of the tract of land claimed by her in her petition of application in this matter, to-wit: the S½SW¼ section 32, 5N-16E, in the County of Sweet Grass, State of Montana, and that the whole of said land is arid and requires artificial irrigation in order to produce crops.

And it appearing that the said Applicant requires for the necessary irrigation of the said land 60 inches or a flow equivalent to 1½ cubic feet per second of time, statutory measurement, of the waters of said springs tributary to Fish Creek, an adjudicated stream in Sweet Grass County, Montana.

It is Further Ordered, Adjudged and Decreed, that the said Applicant, Emily Winsborough is the owner of the said amount of water as was found to be necessary for the irrigation of the said land set forth and described herein, and that she is entitled to the use and enjoyment thereof as of date the 14th day of December 1912 to the exclusion of all other parties to this action.

That the said Applicant, on the 14th day of December 1912 diverted and appropriated from the said springs tributary to Fish Creek, an adjudicated stream, 150 inches or a flow equivalent to $3\frac{3}{4}$ cubic feet per second of time of the waters of said springs, and that she is now the owner and holder of said amount of water, namely: 60 inches statutory measurement.

Dated the 6th day of September, 1916, by the Court.

Albert P. Stark, Judge.

JARRETT OR WRIGHT CREEK DECREE

Case No. 1087

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

John F. McIntyre plaintiff)
vs.) Judgment and Decree
Wilma K. Wilson & John H. Wilson, defendants) Jarrett or Wright Creek

... It is by the Court Ordered, Adjudged and Decreed as follows:

That the plaintiff John F. McIntyre is the owner of certain lands situated in Sweet Grass County, State of Montana, described as follows, to-wit: S $\frac{1}{2}$ SW $\frac{1}{4}$, NESW $\frac{1}{4}$, lot 4, sec. 8, 1S-13E; NW $\frac{1}{4}$ sec. 17, 1S-13E; that said lands are arid and require artificial irrigation for the successful raising of crops thereon, that the said plaintiff, John F. McIntyre is the owner of and entitled to the use and enjoyment of 2 $\frac{1}{2}$ cubic feet per second of time, the equivalent of 100 statutory inches of the waters of Jarrett Creek, also known as Wright Creek, appropriated on the first day of May 1881, all of which water is required for the necessary irrigation of his said lands hereinabove described, or portions thereof.

That the defendant Wilma K. Wilson is the owner of certain lands situate in Sweet Grass County, State of Montana, described as follows, to-wit: S $\frac{1}{2}$ N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$, SESE $\frac{1}{4}$ sec. 18, 1S-13E, that said lands are arid and require artificial irrigation for the successful raising of crops thereon; that the said defendant Wilma K. Wilson, is the owner of and entitled to the use and enjoyment of 2 $\frac{1}{2}$ cubic feet per second of time, the equivalent of 100 statutory inches of the waters of Jarrett Creek, also known as Wright Creek, appropriated on the first day of June 1884, all of which water is required for the necessary irrigation of her said land hereinabove described, or portions thereof.

It is further Ordered, Adjudged and Decreed that the defendant John Wilson is not entitled to be adjudged the owner of any right or interest whatever in the waters of said creek.

Done in open Court this 24th day of July, 1920.

Albert P. Stark, Judge.

LITTLE BIG TIMBER CREEK DECREE

Case No. 1957

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

The State Farms Company and Henry Stole,	plaintiffs)					
vs.	)	Judgment and				
Citizens State Bank, Sam Morris,	)	Decree				
Jake Morris & Arthur Grosfield,	defendants)					

Person to Whom Decreed	Land Description	Sec.	Twp.	Rge.	M.I.	Date of Priority
State Farms Co.	W½ Lots 1, 2, 3, 4, 5, 6, NENW¼, N½NE¼ Lots 1, 2	18 19 20	1N	14E		
Arthur Grosfield	Lots 3, 4 Lots 1, 2 Lots 1, 2, 3, SENW¼, E½SW¼, W½SE¼ Lots 1, 2, 3, W½NE¼, E½NW¼, NESW¼, NWSE¼	24 25 19 30	2N	12E 12E 13E		
Henry Stole	S½ E½	12 13	1N	13E 13E	127	6-1-1891
Arthur Grosfield (Cort Cr.)	Listed above				20	6-1-1895
Citizens State Bank (North Fork) (Springs in	W½ SE¼ NE¼ Sec. 1, 2, 11-2N-12E)	1 2 11 25	2N	12E 12E 12E	100	7-10-1900 7-1-1899
Henry Stole	All S½NW¼, SW¼, S½SE¼ All	11 12 13	1N	13E 13E 13E	185	5-1-1902
Henry Stole	All	11	1N	13E	30	6-1-1902
Citizens State Bank (So. Fk. of No. Fk.)	NWSW¼, E½SW¼, SE¼ All W½NW¼, SW¼, S½SE¼	10 11 12	2N	12E 12E 12E	150	7-1-1904

Arthur Grosfield (So. Fk. of No. Fk.) Listed above	125	7-1-1904			
Citizens State Bank (So. Fk. of No. Fk.) NWSW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$	10	2N	12E	30	7-1-1908
Sam and Jake Morris (So. Fk. of No. Fk.) N $\frac{1}{2}$	14	2N	12E	6	7-1-1911
Sam Morris and Sam and Jake Morris All (So. Fk. of No. Fk.)	14	2N	12E	40	7-1-1920

Dated this 3rd day of August 1932.

Benjamin E. Berg, Judge.

NORTH FORK OF OTTER CREEK (and tributaries) DECREE

Case No. 238

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

B. O. Forsythe,	plaintiff)
vs.)
E. A. Lee, Henry Ellingson,	) Decree
E. H. Ellingson and Knute Anderson,	defendants)

Person to Whom Decreed	M.I.	Priority
Benjamin O. Forsythe	120	6-1-1884
E. H. Ellingson	50	6-1-1885
E. A. Lee	50	6-1-1885
E. H. Ellingson	275	6-1-1890
E. A. Lee	100	6-1-1890
Knute Anderson	80	6-25-1898

Done in open Court this 25th day of June 1903.

Frank Henry, Judge.

SHEEP, or MENDENHALL, CREEK DECREE

Case No. 3163 (Park Co.)

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Park.

Susan A. Mendenhall	plaintiff)
vs.	) Decree
Edward Swainson & John B. Woods,	defendants)

Person to Whom Decreed	M.I.	Priority
Susan Mendenhall	150	9-1-1882
Edward Swainson	50	6-15-1894
John B. Woods	40	6-25-1894

Done in open Court this 20th day of February, 1911.

Frank Henry, Judge.

SPRING CREEK DECREE

Case No. 105

In the District Court of the Sixth Judicial District in and for the County of Sweet Grass.

Al Harrison,	plaintiff)
vs.	) Decree
John Cosgriff,	defendant)

. . . The plaintiff and defendant shall each respectively, be entitled to use the whole of said water alternately for the period of four days each throughout the entire irrigating season of each succeeding year.

November 17, 1899.

Frank Henry, Judge.

SUPPLEMENTAL SPRING CREEK DECREE

Case No. 496

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

A. S. Guthrie and W. S. Sutherland,	plaintiffs)
vs.)
John W. Cosgriff (sued as Wm. Cosgriff)	) Decree
Thomas Cosgriff and Louis Harrison,	defendants)

. . . The plaintiffs (co-partners in the ownership of the lands hereinafter described) are the owners and entitled to the possession of the following described lands, to-wit: S½NE¼, N½SE¼, Sec. 6, 1S-16E.

That the defendant John W. Cosgriff (sued as Wm. Cosgriff) is the owner and entitled to the possession of the following described lands, to-wit: lots 13, 14, SESW¼, SWSE¼, sec. 6, 1S-16E, and also NWNE¼ Sec. 7, 1S-16E.

That the defendant Thomas Cosgriff is the owner and entitled to the possession of lands described as follows, to-wit: S½SE¼, Sec. 1, N½NE¼, Sec. 12, 1S-15E, and also lots 3, 4, 6, 11, NESW¼, Sec. 6, 1S-16E.

That all the aforesaid lands are arid and will not produce agricultural crops without having water applied thereto artificially.

Now in accordance with the terms of said stipulation heretofore herein mentioned it is

Ordered, Adjudged and Decreed that the several rights and interests of the parties hereto shall be as follows, to-wit: That the plaintiffs A. S. Guthrie and W. S. Sutherland, joint owners of the lands hereinbefore described, shall be, and are hereby decreed to have the right to the joint use of all of the waters flowing in Spring Creek, for a period of 4½ days consecutively for use upon the lands above described or other lands lying below any lands owned at this date by the defendants, or either of them; that the defendant Thomas Cosgriff shall have the right to the use of all of the waters flowing in Spring Creek, for a period of 4½ days consecutively, for use upon any of the lands described in his said answer; that the defendant John W. Cosgriff shall have the right to the use of all the waters flowing in Spring Creek for three days consecutively for use upon any of the lands described in his said answer, and hereinbefore described or owned by him, provided, that the said plaintiffs have the right at any time to use any waters flowing in Spring Creek, which may rise in said Creek, below the point of the lowest diversion of waters for use upon the lands belonging to either of said defendants. And provided further, that either of the parties to this action, may at any time use any of said water for domestic or stock water purposes.

Done in open Court this 22nd day of May 1911.

Frank Henry, Judge.

ADJUDICATION OF SWEET GRASS CREEK AND TRIBUTARIES—DECREES
Case No. 342

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

W. A. Harrison, Herman Uttermohle, Andrew Forsythe,)
Jacob Hoyem, B. L. Ryan, G. M. Parker, Fred Bartels,)
George Rostad and P. H. Becken, co-partners, Iver M.)
Hoyem, Joseph Marstein, Samuel Solberg, Ole Crest,)
Frank Gottlob, Hans Peterson, Isaac Rostad,	plaintiffs)
vs.)
Paul L. Van Cleve, Alice Van Cleve, Elizabeth McDonald,)
Samuel Berg, Annie Berg, Eugene Patterson, Emil Adam Jr.,)
Emil Adam Sr., Edward Adam, Andrew Johnson, Henry Wullum,)
Walter Tucker, Sophia Tessier, Syvert Mydland, A. F.)
Wilkinson, George W. Cook, Tessin Cooke, Henry T. Laurey,)
Alexander Elliott, Albert Hausen, Earl Green, B. O. Forsythe,)
Theodore Lavold, Charles McDonald, John Hoff, Harry Hart,	) Decree
Jask Hart, James Medley, Matilda Medley, Michael Whalen,)
John Rye, Lena Rye, E. H. Dahl, Julius Gunderson,)
Christ Christensen, H. O. Hickox, H. P. Franklin,)
Wesley Franklin, C. M. Reim, J. H. Scarlett, Andrew Berg,)
George Moore, David Nevin, Wm. Whalen, E. H. Cummings,)
John Norman, Thos. Duncan, Mary Elling, Mabel Hutt, Union)
Bank & Trust Co., executors of Henry Elling est., John Nevin,)
adm. of Oswalk Nevin est., Martin Gyland, Chris Wagelsun,)
P. A. Kittle, Blanche Martin, Henry L. Martin, W. Weatherman,)
W. C. Weatherman, Annie Dahl, Iver Hoyem, T. H. Gurney, Prosper)
Tessier, John Elliott, Henry Ellingson, E. H. Ellingson,	defendants)

Person to Whom Decreed	Stream	M.I.	Cu.ft./Sec.	Priority
W. A. Harrison		120	3	9-1-1878
Glenn Parker		22	11/20	9-1-1878
Andrew Forsythe		148	3-7/10	9-1-1878
Herman Uttermohle		142	3-11/20	9-1-1878
George W. Cook	Cayuse Creek	200	5	6-1-1879
H. P. Franklin		100	2-1/2	6-1-1880
George W. Cook	Cayuse Creek	250	6-1/4	6-1-1881
W. A. Harrison		22	11/20	9-12-1881
Glen Parker		35	7/8	9-12-1881
Andrew Forsythe		27	27/40	9-12-1881
Herman Uttermohle		26	13/20	9-12-1881
E. H. Ellingson	Billie Creek	75	1-7/8	5-5-1882
Herman Uttermohle		100	2-1/2	5-10-1882
Henry Bartels		72	1-4/5	7-7-1882
John Nepstad, adm.	Cayuse Creek	40	1	2-1-1883
William Seymore and Chas. McAllister		200	5	4-1-1883
T. S. Lavold	Basin or Runaway Cr.	120	3	5-26-1883
John Hoff	" " " "	100	2-1/2	5-26-1883
John Elliott		50	1-1/4	6-1-1883
William Whalen		120	3	6-2-1883
E. H. Ellingson	Billie Creek	40	1	7-1-1883
Sam Berg		80	2	8-1-1883
Rostad & Becken		140	3-1/2	9-8-1883
Mary B. Elling, Mabel M. Hutt, and Union Bank & Trust Co., Exec. of Henry Elling est.	Big Spring, Sec. 7	100	2-1/2	6-1-1884
Fred Bartels		112	2-4/5	8-2-1884
Iver M. Hoyem		110	2-3/4	8-2-1884
B. L. Ryan		95	2-3/8	8-2-1884
Hans Peterson		136	3-2/5	8-2-1884
Jacob Hoyem		75	1-7/8	8-2-1884
Matilda A. Medley		130	3-1/4	7-1-1885
George W. Cook		60	1-1/2	6-1-1886
Hickox-Hickox Co.		500	12-1/2	7-1-1886

3540

Person to Whom Decreed	Stream	M.I.	Cu.ft./Sec.	Priority
H. P. and Effie Franklin		100	2-1/2	6-1-1887
Mary B. Elling, Mabel M. Hutt, and Union Bank & Trust Co., exec. of Henry Elling est.		270	6-3/4	7-2-1887
Prosper Tessier		125	3-1 8	7-2-1887
Paul L. Van Cleve and				
John H. Scarlett		1450	36-1/10	7-15-1887
Alice Van Cleve		300	7-1/2	7-15-1887
H. P. Franklin		700	17-1/2	4-1-1888
W. P. Franklin		400	10	4-1-1888
Prosper Tessier		100	2-1/2	5-1-1888
W. P. Franklin		350	8-3/4	6-25-1888
Sam Berg		300	7-1/2	7-30-1888
George Moore	Cayuse Creek	108	2-7/10	8-1-1888
William Whalen		240	6	9-1-1888
H. P. Franklin	Rye Creek	150	3-3/4	9-1-1888
Effie Franklin	Rye Creek	150	3-3/4	9-1-1888
Sam Solberg		40	1	6-1-1889
Mary B. Elling, Mabel Hutt and Union Bank & Trust Co.		120	3	6-1-1889
Matilda Medley		140	3-1/2	6-1-1889
Ed and Emil Adam		50	1-1 4	6-1-1889
John Nepstad, adm.	Cayuse Creek	100	2-1/2	6-1-1889
W. S. and W. F. Weatherman		200	5	9-21-1889
Harry and Jack Hart		350	8-3/4	8-1-1889
John Elliott		60	1-1 2	10-30-1889
Henry Wullum	Wild Cat Creek	25	5/8	4-1-1890
B. L. Ryan		68	1-7/10	5-1-1890
Ole Crest		86	2-3/20	5-20-1890
Prosper Tessier		100	2-1/2	6-1-1890
Frank Gotlob		65	1-5/8	6-15-1890
Fred Bartels		40	1	6-1-1891
Iver H. Hoyem	Basin or Runaway Cr.	175	4-3/8	6-10-1891
Sam Berg		200	5	5-15-1892
Sam Solberg		46	1-3/20	6-1-1892

Person to Whom Decreed	Stream	M.I.	Cu.ft./Sec.	Priority
Isaac Rostad		50	1-1/4	6-1-1892
Harry and Jack Hart		300	7-1/2	6-1-1892
Andrew Berg		250	6-1/4	6-1-1892
Matilda A. Medley		80	2	5-4-1893
Henry Bartels		126	3-3/20	5-15-1893
Rostad & Becken		192	4-4/5	5-15-1893
E. H. Dahl		100	2-1/2	6-3-1893
John Rye		250	6-1/4	7-20-1893
Martin Gyland		180	4-1/2	7-30-1893
T. S. Lavold		80	2	10-1-1893
John Rye		350	8-3/4	5-1-1894
W. A. Harrison		200	5	6-1-1894
John Norman		50	1-1/4	6-1-1894
John Nepstad, adm.	Cayuse Creek	80	2	6-1-1894
Sam Berg		80	2	7-1-1894
E. H. Dahl		80	2	3-31-1895
Syvert Mydland		145	3-5/8	7-1-1895
Sam Berg		40	1	7-1-1896
George Moore		600	15	5-1-1897
E. L. Patterson		65	1-5/8	6-1-1897
Charles McDonnell and				
Edward Veasey		750	18-3/4	4-13-1898
Jacob Hoyem		240	6	5-1-1898
Isaac Rostad		70	1-3/4	5-1-1898
E. L. Patterson		30	3/4	6-1-1898
C. M. Rein		100	2-1/2	6-1-1898
Sam Berg		300	7-1/2	6-30-1898
Joseph Marstein		60	1-1/2	5-1-1899
Ed and Emil Adam		100	2-1/2	5-20-1899
Andrew Johnson		400	10	6-14-1900
Walter Tucker		150	3-3/4	8-21-1900
Frank Gotlob		80	2	6-15-1901
Eugene Cummings		125	3-1/8	9-21-1901
David Nevin		125	3-1/8	9-21-1901
Henry Wullum		40	1	4-1-1902
Wm. Seymore and				
Chas. McAllister		675	16-7/8	5-28-1902

16543

Person to Whom Decreed	Stream	M.I.	Cu.ft./Sec.	Priority
A. F. Wilkinson and P. M. Kittle	Sour Dough Creek	40	1	7-1-1902
A. F. Wilkinson and P. M. Kittle		80	2	6-1-1903
Annie Dahl est.		150	3-3/4	6-15-1903
Elizabeth McDonnell		200	5	5-1-1904
Jacob Hoyem		50	1-1/4	5-2-1904
George W. Cook		60	1-1/2	6-1-1904
T. S. Lavold		300	7-1/2	6-29-1904
E. H. Ellingson		300	7-1/2	6-29-1904
Julius Gunderson		350	8-3/4	6-29-1904
E. H. Dahl		200	5	8-1-1904
Ed and Emil Adam		300	7-1/2	9-1-1904
Kate Adam		300	7-1/2	9-1-1904
John Hoff		800	20	10-1-1904
Earl Green		700	17-1/2	10-1-1904

320
150
Done in open Court this 6th day of April 1906.

Frank Henry, Judge.

Case No. 1-342

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

In the matter of the application of Knute Hanson)
for a right to appropriate the waters of Sweet)
Grass Creek, the right to the use of waters from)
said Creek having been adjudicated and decreed.)

. . . Wherefore it is Ordered, Adjudged and Decreed, that the said Knute Hansen be and he is hereby decreed to be the owner and entitled to the use of 320 inches or its equivalent, 8 cubic feet per second of time of the waters of Sweet Grass Creek, as of the date of September 4, 1908, and that he, the said Knute Hanson is subject to, bound by and shall comply with the decree of this Court made and entered on the 6th day of April, 1906 in the cause heretofore mentioned, wherein W. A. Harrison et al were plaintiffs, and Paul Van Cleve et al were defendants, wherein the rights to the use of the said waters of said stream were adjudicated.

Done in open Court this 21st day of December, 1908.

Frank Henry, Judge.

Case No. 7-342

In the District Court of the Sixth Judicial District of the State of Montana, County of Sweet Grass.

In the matter of the application of)
Mary Ingle and John Drivdahl to appropriate) Order allowing appropriation
water in Sweet Grass Creek for irrigation)

. . . It is ordered and decreed that Mary Ingle and John Drivdahl are the appropriators and lawfully entitled to the use of ten cubic feet of the waters of Sweet Grass Creek, in Sweet Grass County, Montana, diverted and to be diverted from said stream of Sweet Grass Creek, at a point which bears from the S.E. corner of Sec. 23, 4N-14E and on the right bank of said stream North 39 degrees and 02 minutes west 4426.5 feet distant, from which point of diversion the ditch for the diversion of said water extends to and upon the lands of Mary Ingle, to-wit: S½NW¼, S½NE¼, NESW¼, N½SE¼, SESE¼, Sec. 34, 4N-15E, and to and upon the lands of said John Drivdahl, to-wit: NE¼ Sec. 32, 4N-15E, in said Sweet Grass County, for irrigation of said land, and that Mary Ingle is the appropriator and entitled to the use of 5 cubic feet per second of time of said waters, and that John Drivdahl is the appropriator and entitled to the use of 5 cubic feet per second of time of said water, to be diverted and used by them through the ditch as shown in the report on the engineer on file in this Court.

Done in open Court the 1st day of July 1912.

James F. O'Connor, Judge.

Case No. 17-342

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

W. A. Harrison et al, plaintiffs)
vs.) Order of Decree
Paul L. Van Cleve et al, defendants)

In the matter of Christine Raisland for a survey and decree of water right of the waters of Wild Cat Creek, a tributary of Sweet Grass Creek, an adjudicated stream.

. . . Now therefore by reason of the law and the premises, it is Ordered, Adjudged and Decreed, that the appropriator, Christine Raisland, is the owner and entitled to the use, possession and enjoyment, under and by virtue of a filing thereon under the Desert Land Acts of the United States of America, of the tract of land claimed by her in her petition on application in this matter, to-wit: the SWSW¼, N½SW¼, NWSE¼, Sec. 2, 2N-16E in the County of Sweet Grass, State of Montana, and that the whole of said land is arid and requires artificial irrigation in order to produce crops.

And it further appearing that the said Applicant requires for the necessary irrigation of the said lands 100 inches or a flow equivalent to 2½ cubic feet per second of time of the waters of said Wild Cat Creek, a tributary of Sweet Grass Creek, an adjudicated stream in Sweet Grass County, Montana.

It is further Ordered, Adjudged and Decreed: That the said Applicant Christine Raisland is

the owner of said amount of water as was found to be necessary for the irrigation of said land set forth and described hereinbefore, and that she is entitled to the use and enjoyment thereof, as of date the 16th of July 1913 to the exclusion of all other parties to this action.

That the said applicant on the 16th day of July 1913 diverted and appropriated from said Wild Cat Creek, a tributary of Sweet Grass Creek, an adjudicated stream, 100 inches, or a flow equivalent to 2½ cubic feet per second of time of the waters of said Wild Cat Creek, and that she is now the owner and holder of 100 inches statutory measurement.

Dated the 15th day of September 1913.

Albert P. Stark, Judge.

Case No. 18-342

In the District Court of the Sixth Judicial District of the State of Montana in and for the County of Sweet Grass.

W. A. Harrison et al, plaintiffs)
 vs.) Order of Decree
Paul L. Van Cleve et al, defendants)

In the matter of Sivert B. Raisland for a survey and decree of water right of the waters of Wild Cat Creek, a tributary of Sweet Grass Creek, an adjudicated creek.

... It is Ordered, Adjudged and Decreed that the appropriator Sivert B. Raisland is the owner and entitled to the use, possession and enjoyment, under and by virtue of a filing thereon under the Desert Land Acts of the United States of America, of the tract of land claimed by him in his petition on application in this matter, to-wit: lots 1 and 2, SWNE¼, Sec. 2, 2N-16E in the County of Sweet Grass, State of Montana, and that the whole of said land is arid and requires artificial irrigation in order to produce crops. And it further appearing that the said applicant requires for the necessary irrigation of said lands 100 inches or a flow equivalent to 2½ cubic feet per second of time of the waters of said Wild Cat Creek, a tributary of Sweet Grass Creek, an adjudicated stream in Sweet Grass County, State of Montana.

*It is further Ordered, Adjudged and Decreed that the said applicant Sivert B. Raisland is the owner of the said amount of water as was found to be necessary for the irrigation of said lands set forth and described herein, and that he is entitled to the use and enjoyment thereof as of date the 25th day of June 1913 to the exclusion of all other parties to this action.

That the said applicant is now the owner and holder of the said amount of water 100 inches or a flow equivalent to 2½ cubic feet per second of time.

Dated the 15th day of September 1913.

Albert P. Stark, Judge.

Case No. 25-342

In the District Court of the Sixth Judicial District of the State of Montana in and for the County of Sweet Grass.

In Proceedings Supplementary to the case entitled:

W. A. Harrison et al, plaintiffs)
 vs.) Decree
Paul L. Van Cleve et al, defendants)

The application of H. P. Franklin to appropriate a water right from the waters of Sweet Grass Creek, an adjudicated stream in Sweet Grass County, State of Montana.

It is Ordered, Adjudged and Decreed, that the Petitioner, H. P. Franklin, is entitled to the use, possession and enjoyment of 23.6 cubic feet per second of the waters of Sweet Grass Creek for irrigation purposes, and he is decreed to be the appropriator of said 23.6 cubic feet per second of the waters of said Sweet Grass Creek, appropriated on the 25th day of October 1913 for irrigation purposes.

Done in open Court by the Court on this 24th day of February 1914.

Albert P. Stark, Judge.

Case No. 32-342

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

In the matter of the Application of Oscar Drivdahl
to appropriate a water right from the waters of
Sweet Grass Creek, an adjudicated stream.

In proceedings Supplementary to the case entitled:

W. A. Harrison et al, plaintiffs)
 vs.) Decree
Paul L. Van Cleve et al, defendants)

. . . It is Ordered, Adjudged and Decreed that Oskar Drivdahl is the appropriator of four cubic feet per second of the waters of Sweet Grass Creek, an adjudicated stream, appropriated July 8, 1911, for irrigating purposes on the lands aforesaid (NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, Sec. 32, 4N-15E), and that he have, use and enjoy said water right, subject to all legal prior appropriations of the waters of said stream.

Done in open Court this 30th day of September 1914.

Albert P. Stark, Judge.

Case No. 36-342

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

W. A. Harrison et al, plaintiffs) Petition on Application
 vs.) for a Decree
Paul L. Van Cleve et al, defendants) for Water Right

In the matter of Lafayette Bailey for a survey
and decree of water of Spring Creek, a tributary
of Sweet Grass Creek, an adjudicated stream.

. . . It is Ordered, Adjudged and Decreed: That the Appropriator, Lafayette Baily, is the owner and entitled to the use, possession and enjoyment, under and by virtue of a filing thereon under the Desert Land Act, of the United States of America, of the tract of land claimed by him in his petition on application in this matter, to-wit: S $\frac{1}{2}$ SE $\frac{1}{4}$, NWSE $\frac{1}{4}$, Sec. 12, 2N-15E containing 120 acres all of said land being in the County of Sweet Grass, State of Montana, and the whole of said land is arid and requires artificial irrigation in order to produce crops.

And it further appearing that the said applicant requires for the necessary irrigation of the said land 120 inches, or a flow equivalent to 3 cubic feet per second of time, statutory measurement, of the waters of said Spring Creek, a tributary of Sweet Grass Creek, an adjudicated stream in Sweet Grass County, State of Montana.

It is further Ordered, Adjudged and Decreed: That the said Applicant Lafayette Bailey is the owner of the said amount of water as was found to be necessary for the irrigation of the said lands set forth and described herein, and that he is entitled to the use and enjoyment thereof as of date the 20th day of July, 1915, to the exclusion of all other parties to this action.

That the said Applicant, on the 20th day of July 1915 diverted and appropriated from Spring Creek, a tributary of Sweet Grass Creek, an adjudicated stream, 120 inches or a flow equivalent to 3 cubic feet per second of time, statutory measurement, of the waters of said Spring Creek, and that he is now the owner and holder of 120 inches of the said water appropriated as of date aforesaid.

Dated this 22nd day of September 1915.

Albert P. Stark, Judge.

Case No. 41-342

In the District Court of the Sixth Judicial District of the State of Montana, in and for the County of Sweet Grass.

Proceedings supplementary in the Application of John Norman to appropriate a water right from the waters of Dry Fork of Sweet Grass Creek, an adjudicated stream in Sweet Grass County, Montana.

W. A. Harrison et al, plaintiffs)
 vs.) Decree
Paul L. Van Cleve et al, defendants)

. . . It is Ordered, Adjudged and Decreed that the petitioner John Norman, is entitled to the use, possession and enjoyment of 2½ cubic feet per second of the waters of Sweet Grass Creek for irrigation purposes, and he is decreed to be the appropriator of said 2½ cubic feet per second of time of the waters of the Dry Fork of Sweet Grass Creek, appropriated on the 28th day of November, 1916.

Done in open Court on this 4th day of April 1917.

Albert P. Stark, Judge.

WARM SPRINGS or FISTECATOR CREEK DECREE

Case No. 465

In the District Court of the Sixth Judicial District of the State of Montana in and for the County of Sweet Grass.

Joseph Felenzer, plaintiff)
 vs.)
Wm. Sherwood, Helen Sherwood,) Decree
E. W. Pruett, Lulu Pruett)
and Martha Anderson, defendants)

. . . It is by the Court Ordered, Adjudged and Decreed, that the plaintiff, Joseph Felenzer, is the owner and in possession of the SESE¼ of Section 26, and the E½NW¼, NESW¼ of section 35, 3S-12E and that the plaintiff is the owner of and entitled to the use and enjoyment of 40 inches or a flow equivalent to one cubic foot per second of time, of the waters of Warm Springs or Fistecator Creek, appropriated March 30, 1903, for the necessary irrigation of the lands above described.

That the defendant, E. W. Pruett, is the owner of and in possession of and entitled to the possession of the SESW¼, W½SW¼, SWNW¼, of section 35, 3S-12E and that the defendant, E. W. Pruett, is the owner of and entitled to the use and enjoyment of 35 inches or a flow equivalent to 7/8 cubic foot per second of time to the waters of Warm Springs or Fistecator Creek, appropriated October 1, 1902. That all of said lands above described are arid and require artificial irrigation in order to produce a crop of value whatsoever.

Done in open Court this 13th day of December, 1909.

Frank Henry, Judge.